



THE CHEMIST AND DRUGGIST

TELEPHONE
1852
NUMBER

TELEGRAPHIC
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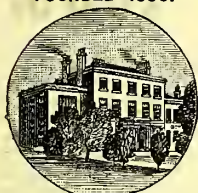


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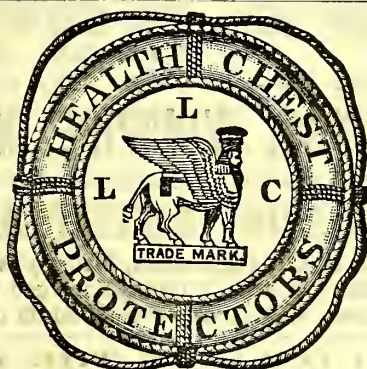
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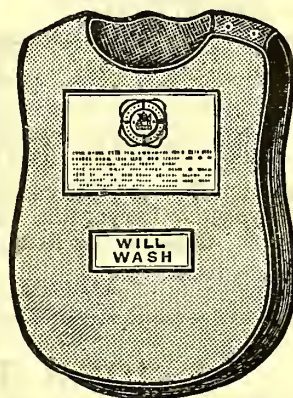
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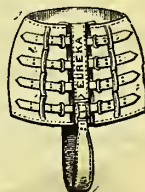


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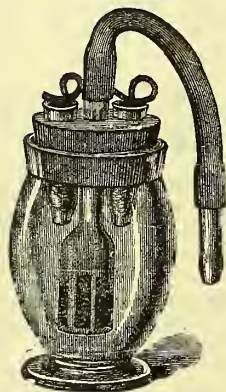
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Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria,
Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice,
Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

None Genuine except such as bears the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottle
on the Label over the Cork, and on the Wrapper,

JOHN FRANCIS CHURCHILL, M.D. (Paris),

The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites

Price 4s. 6d. and 11s. per Bottle.

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

THE SPIRONE COMPANY, Lim., Depot—17A Duke St., Manchester Square, LONDON, W.

MAW'S

EARTHENWARE INHALERS

For Hot Water, Infusions, &c.

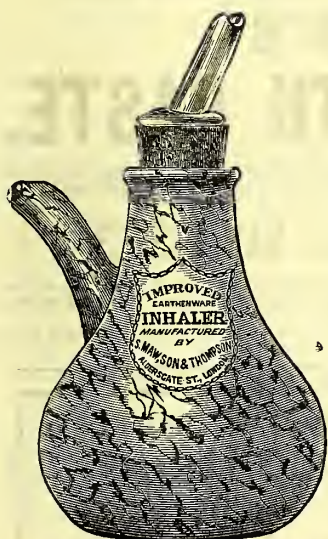


FIG. 8.

MAW'S IMPROVED.



FIG. 6.

MAW'S DOUBLE-VALVED.

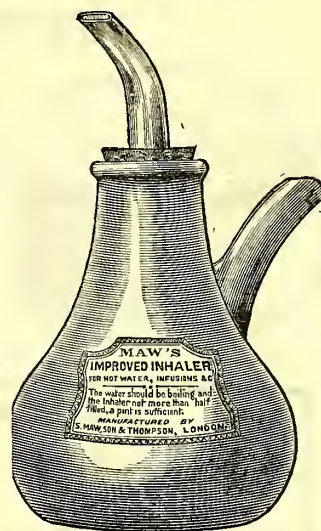


FIG. 8A.

MAW'S IMPROVED.

Fig. 6.—Double-Valved, 60/- per dozen; with Elastic Tubes, 78/-

Fig. 8.—Marbled, 32/- per dozen.

Fig. 8a.—White, 21/- per dozen.

Fig. 8a.—White, half size, 13/- per dozen.

ELASTIC TUBES, with Mouthpieces, to fit Fig. 8 and 8a, 7 inches long, 8/- per dozen; 9 inches long, 12/- per dozen.

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

MANUFACTURED BY

S. MAW, SON & THOMPSON, LONDON.

A. S. LLOYD'S EUXESIS, FOR SHAVING WITHOUT SOAP, WATER, OR BRUSH.

CAUTION.

The labels on genuine EUXESIS bear signature of Inventor, A. S. LLOYD, in *BLACK INK*, and the signature of his Widow, AIMEE LLOYD, in *RED INK*. Refuse all others.

Manufacturer: **AIMEE LLOYD** (WIDOW OF A. S. LLOYD, formerly of 27 GLASSHOUSE STREET)
3 SPUR STREET, LEICESTER SQUARE, LONDON.

N.B.—When ordering from Wholesale Houses, write "LLOYD'S EUXESIS (WIDOW'S)." "

WHITE AND SOUND TEETH. JEWSBURY & BROWN'S



ORIENTAL TOOTH PASTE.

This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address cards and directions for enclosure.

R C TREATT

Dunster House Mining Lane
LONDON

IMPORTER OF

Musk Civet Ambergris Attar - of - Rose

ESSENTIAL OILS



Wholesale
and
Export
only.

APPLICATION.

ON

QUOTATIONS

AND

PRICE LIST

BRODIE'S IMPERIAL HAIRDYE.

(REGISTERED.)

ONE LIQUID. — Harmless, Perfect, Permanent, and Odourless. Clear, and without Sediment.

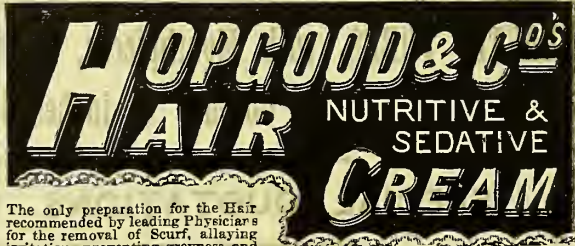
Guaranteed to contain no lead, or any other noxious ingredient.

BLACK, BROWN, LIGHT BROWN, OR GOLDEN.

TRADE PRICE LIST:—

No. 1.	1s. Od. size	--	--	7s. Od. per doz. Nett
No. 2.	2s. 6d. "	--	--	17s. 6d. "
No. 3.	3s. 6d. "	--	--	24s. 6d. "
No. 4.	5s. Od. "	--	--	35s. Od. "
No. 5.	10s. 6d. "	--	--	78s. 6d. "

J. BRODIE, 41 Museum Street, **LONDON, W.C.**



LUXURIANT HEAD of HAIR.

In Bottles to retail at 1s. 6d., 2s., 2s. 6d., 3s. 6d., 5s.
Revised Wholesale Prices, 12s. 6d., 16s. 6d., 20s., 30s., and 42s. per dozen
Supplied by all Wholesale Sundry Houses,
OR FROM THE DEPÔT—

OSBORNE, GARRETT & CO., 51 Frith St., Soho, London, W.

A. S. LLOYD'S EUXESIS,

For Shaving without Soap, Brush, or Water.

CAUTION.

The only Genuine has a yellow label printed ONLY in Black Ink, and bears the original address of the late inventor, "27 Glasshouse Street, Regent Street," the proprietors having purchased, under an administration suit, the Secret, Trade Mark, Goodwill, and Premises:

SOLE PROPRIETORS

R. HOVENDEN & SONS, LONDON.



FOR
LADIES
OF
FASHION

CRÈME SIMON À LA GLYCERINE.

MARVELLOUS FOR

Softening & Whitening the Complexion. Most efficacious for the Skin.

J. SIMON, 36 RUE DE PROVENCE, PARIS.

FOR SALE BY DRUGGISTS AND FANCY GOODS STORES.

SUPERIOR

TO

VASELINE

AND

CUCUMBERS

GREENSILL'S

THE
ORIGINAL

When

ordering
from

MONA

AND ONLY

GENUINE.

Wholesale Houses

please specify

"GREENSILL'S."

BOUQUET

SOLE MANUFACTURERS—

T. S. GREENSILL & SON

LOCH PARADE,

DOUGLAS, ISLE OF MAN.

H. P. TRUEFITT'S SPECIALITIES FOR THE HAIR.

Floral Extract, 3/6, 5/-,
10/6, 21/-

Egg Yulep, 2/-, 4/-

CONCENTRATED

Egg Yulep, 2/6,
5/-, 10/6.

Golden Fluid,
10/6, 21/-

EUXURON,

1/6.

&c.

Stimulating Lotion, 5/-
10/6.

Astringent and Tonic
Lotion, 5/-, 10/6.

Quinine and Arnica
Hair Wash, 3/6,
5/-, 10/6, 21/-.

Arnica Wash,
3/6, 5/-,
10/6.

&c.

EUCHRISMA.
Combines in one clear Fluid every valuable
Component both of a Hair Dressing and Wash,
3/6, 5/-, 10/6, 21/-.



An elegant Preparation for
the Hair and Beard.
Price 2/6, 3/6, 5/-, 10/6, 21/-.

EAU RACINE.
For renewing the original colour of Grey Hair;
superior to all other Preparations being perfectly
simple in its Components. Price 6/-.



BRILLANTINE.

H. P. TRUEFITT'S TONIC TOOTH BRUSH

(BY ROYAL LETTERS PATENT.)

PRICE ONE SHILLING.

20 & 21 Burlington Arcade; 13 & 14 Old Bond St., London.

EXCHANGE COLUMN.

This section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week.
Remittances payable to EDWARD HALSE.

TERMS

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C." and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

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Postal orders and cheques sent as deposit must be made payable to Edward Halse, and crossed "Martin & Co."

FOR DISPOSAL

Drugs and Chemicals.

7 lbs. potass. iodid.; 6 oz. morph. mur.; what offers? 138/13.

Popy heads.—5s. 1,000; bag 6d.; sample 3d. Connor, Chemist, Doncaster.

What offer for pottle bottle potass. iodidi and 28 lbs. gum opii Turkey, very dry? Thomas Coatsworth, 88 Leman Street, Whitechapel, London, E.

Literature.

Bentley's "Botany," 5s. Wilson, 9 Leeming Street, Mansfield.

Bentley's "Botany," 8s.; Squire's "Companion," 1882, 6s.; Beasley's "Prescriptions," 3s. 6d.; Cooke's "Botany," 8s. Vincent, 103 Warner Road, Camberwell.

What offers for John's "Botany," Bentley's "Botany," Pereira's "Selecta," Garrod's "Materia Medica"; Muter's ditto., Muter's "Analytical Chemistry," Atfield's "Chemistry," Roscoe's "Chemistry"; "Pharmacopœia, 1867," interlarded with notes, also 1885; Everett's "Physics" Apply, Jones, 51 Bedford Street, Cardiff.

Formulae.

Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.

Something new!!!—Brooks's reliable recipes still hold their own because they are all practical.—Send 1s. 6d. postal for following three reasonable ones to prove worth:—"Winter Balm," an entirely new remedy for chapped hands, frost-bites, roughness, &c., elegant and economical preparation, pink or colourless, contains Witch hazel, and pronounced (by doctors) a perfect skin lotion, will recommend itself, large sale certain; "Chilblain Remedy," cleanly, safe, and inexpensive, gives instant ease, ultimate cure, will answer after all others fail; accompanying recipe for broken chilblains free; "Balm of Glycerine and Licorice," grandest cough cure extant, cheaply produced, most pleasing taste, rapidly efficacious, suited for children and adults, recommended as stock bottle; samples of above 4d. each; detailed list of 400 recipes free. Tom Brooks, Chemist, Hornsey, N.

Proprietary Articles.

Surplus patents at half price, or reasonable offers.—Five 1s. 9d., 3 2s. 9d. Woodcock's rheumatic mixture; 2 2s. 9d. manx shrub; 1 1s. 1½d., 1 2s. 9d. Wild's gout mixture; 2 1s. 1½d. Seekamp's lozenges; 1 2s. 6d. tik-heel; 5 2s. 6d. Thornton's ambaline; 2 1s., 2 1s. 6d. Thornton's toilet cream. Crofts, Grange Mount, Birkenhead.

Eggo's medicines, unsoiled:—4 doz. 10l. corn cure, 5s. 9d.; 1½ doz. 1s. 1½d. headache pills, 5s. 9d.; 1½ doz. 1s. 1½d. ointment, 6s. 6d.; 1½ doz. 1s. 1½d. Indian mixt., 6s. 6d.; 2 doz. 2s. 6d. embrocation, 16s. 6d. Cash to "Chemist," 71 Parade, Birmingham.

Shop Fittings.

Mahogany counter-case, "Toilet Requisites," bent glass, 3 ft. 3 in. by 20 in. by 14 in. Cattell, Aston Road, Birmingham.

Second-hand shop fittings in great variety, equal to new, at half the price; entire shops fitted from stock. On view, Natali & Co., 184 Aldersgate Street, nearly opposite Maw's. Established 1863.

Drawers, several nests; also glass cases for the counter and wall; 500 second hand bottles, carboys, desks, outside lamps, counters, window enclosures, and entire fittings of a large shop, together or separate, at one-third the cost, at Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Glass bottles, job lines.—About 50 gross 3-oz. pale green pomades for corks, 4s. 6d. per gross; 2 gross 6-oz. screw nickel-capped pomades, 16s.; 1 gross 16-oz. ditto, 30s.; 3 gross ½-pint (reputed) green syrups, 7s.; 4 gross ½-pint ditto, 10s.; 2 gross 1-pint ditto, 15s.; 3 gross 1-pint ditto, 20s.; 3 gross 2-oz. white globe-necked panels, 7s. Hearn, 381 Kingsland Road, London.

Three mahogany wall-cases, each 6 feet by 2½, with movable shelves; upright counter case, two panelled-fronted counters, solid mahogany tops; nest of 84 mahogany-fronted dove-tailed drawers, hand made, gold labels, 16½ feet; 9 stained cupboards, 60 feet shelving, 20 feet cornice, stool, mahogany chair, and handsome dispensing screen; offer; on view. Apply, Edwards, 42 Stroud Green Road, Finsbury Park.

Miscellaneous.

Four doz. small, two doz. large Tannus water, surplus patents. Beck, Chemist, Buxton.

Hand drug-grinder, in splendid condition, cheap. Sutcliffe, 225 Rochdale Road, Oldham.

Maw's respirators, inhaler; Mawson's collodion; various patents; post-card for list. Williams, Hayle.

30 gross excellent porous plasters, 1s. 4d. dozen; sample post free 3d. Price, Chemist, Walthamstow.

11 gallon cans Jeyes' fluid disinfectants, 3s. 3d., cans included. T. D., Chemist, 83 New Church Road, Camberwell.

Exchange rich old violin (approx. one way) or first three 6s. 6d. vols. Blackie's "Modern Encyclopædia," 1889, new, for Quain's "Dictionary of Medicine." Wilkin, 54 High Street, Stroud, Glos.

50 boxes very choice Princesses cigars, 7s. 6d. 100; cost 11s. Slater, Beeston Hill, Leeds.

Job line.—Cheap little Turkey sponges, soft as velvet, for bathing wounds, eyes, &c., 1s. doz., 3 doz. 2s. 6d., free. Brooks, Chemist, Hornsey, N.

Triplex magic lantern, with 9 ft. screen and poles, with over 100 pictures, will accept 7l.; a bargain; splendid for Sabbath School or Band of Hope. 143/2.

Thirteen pairs spectacles, three pebbles, cost 33s. 6d., for 20s.; Norman's pill-coater, 2s. 6d., cash or exchange. Townsend, Chemist, Bradford, Yorks.

Bargains.—Carboy, 16 or 18 gall., magnificent diamond-cut acorn stopper; tincture press, Enterprise; pill-coating machine; Rover safety bicycle, nearly new. Dixon, Chemist, Aston Cross, Birmingham.

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No. 1 Wilson's patent gas fire (stove), front nickle plate, 20s.; No. 6 Queen stove (coals), 10s.; both equal new, suitable for either drawing-room or shop; marble mortar, 8½ in. diameter, inch thick, four projects for fixing, wooden pestle, 5s. 6d. 404 Essex Road, London.

115 Bradbury's dip; 54 Cooper's seed protector; Tomlinson's butter powder; Sucrose; Barber's, Chapman's, Dellar's, and Sawyer's corn plasters; 10 1 gallon stock tincture bottles, and other patents; what offers? Lizar's anatomical plates, 10l, with 2 vols. descriptive matter, cost 12l., will take 6l. 144/11.

Microscopic objects of every description; entertaining slides, suitable for evening exhibition, 5s. dozen; list free; 4 dozen slides sent, carefully packed and postage paid, for 21s. to Australian Colonies, Belgium, Canada, France, Germany, India, New Zealand, South Africa, &c. Lantern slides wanted in exchange. Henry Ebbage, 344 Caledonian Road, London.

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Pessary and bougie moulds, Maw's. Wylie, Chemist, Edinburgh.

Atfield's "Chemistry," late edition; state price. J. Buckland, Hucknall, Notts.

Dental instruments, lowest price, on approval. "Chemist," 170 High Street, Deal.

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Half-dozen 1 or 2 gallon wide-mouth white glass bottles. Hagon, Chemist, Cardiff.

Large specie jar on stand, complete, for cash, or exchange recipes. Brooks, Chemist, Hornsey, N.

TO THE CHEMISTS, DRUGGISTS, AND PATENT MEDICINE VENDORS THROUGHOUT THE WORLD.

By H.M. Royal Letters
Patent.**THOMAS WOOD'S**By H.M. Royal Letters
Patent.**C**
URES**COLDS****C**
URES**ASTHMA****C**
URES**C**
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URES**BRONCHITIS****C**
URES**DIFFICULTY OF BREATHING AND ALL AFFECTIONS OF THE CHEST.**

I beg to call your attention to the above Medicine, my **CELEBRATED FRUIT COMPOUND**, which is meeting with universal success and must soon have the largest sale of any Patent Cough Specific in the World.

Medical men have proved beyond dispute that this preparation is far more efficacious in the Cure of Coughs, Colds, Asthma, Hoarseness, Difficulty in Breathing, Sore Throats, Bronchitis, &c., than any remedy yet used.

I am advertising very largely and shall continue doing so to such an extent that every Chemist, Druggist, and Patent Medicine Vendor in the United Kingdom will be asked for it.

I do not expect you to invest or stock largely until the Medicine has been well brought before the public and a demand created, but shall be glad if you will order say 6 to 12 bottles, as you will certainly have inquiries for it and it would therefore be to your interest to have a few in stock.

I am prepared to furnish you with High Class Printed Matter, Show Cards, Almanacks for presentation to your customers, and leaflet for wrapping purposes.

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9/- per dozen.**Retailed at 1/1 $\frac{1}{2}$.**

I shall be pleased to submit small Sample Bottle on application.

My Fruit Compound can be obtained from the following Wholesale Houses:—

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THOMAS WOOD'S CELEBRATED FRUIT COUGH TABLETS.

PRICE LIST ON APPLICATION.

ALL COMMUNICATIONS TO BE ADDRESSED TO FACTORY, SWANLEY, KENT.

THE DIAMOND MARK.

To secure the best Hungarian Aperient Water

DEMAND THE DIAMOND MARK,And insist upon receiving the **HUNGARIAN APERIENT WATER** sold by the **APOLLINARIS COMPANY (LIMITED), LONDON.**

OF ALL DRUGGISTS AND MINERAL WATER DEALERS.

**ROBINSON'S
LIEBIG'S BEEF WINE.**Composed of Liebig's Extract of Beef, Extract of Malt,
and sound Port Wine.**REPORT ON BEEF WINES.**

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).
December 15, 1888.

Introduced 1855.

ROBINSON'S CONCENTRATED WATERS.

[Introduced 1855.]

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They will keep good any length of time in any climate.



Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Var. Concent., 6/ lb.	Aqua Fontenli, Concent., 4/ lb.	Aqua Pimentæ, Concent., 4/ lb.
" Anisi " 4/ "	" Cassia " 4/ "	" Menth. Pip. " 4/ "	" Rosæ " 8/6 "
" Camphoræ " 4/ "	" Flor. Aurant. " 8/6 "	" Ang. " 6/ "	" Rosæ Virgin. " 10/6 "
" Carui " 4/ "	" Flor. Sambuci " 8/6 "	" Viridi. " 4/ "	

" The above are put up in Bottles of 1 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.
From the LANCET, July 15, 1882:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Aq. Anethi, Anisi, Cinnam. Var., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopœia. They are excellent in quality, and will be very useful, especially in country practice. [1]
Wholesale Agents: HEARON & CO., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.
B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER.

**DENAYER'S****LIQUID PEPTONES STERILIZED**

Free from microbes!
Keep good for ever in all climates.
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DENAYER'S PEPTONATE OF IRON. A bland, non-irritating and most easily assimilable ferruginous preparation. For debilitated constitutions, children, and aged people.
DENAYER'S PEPTONE OF MEAT. A powerful restorative for all ailments of the stomach, stimulates general nutrition. Is retained when the stomach rejects all other food. Pleasant to taste.
Of all Chemists and Wholesale Houses.

T. BAGE BLYTON & CO.**MANUFACTURING PHARMACEUTICAL CHEMISTS,**

AND MAKERS OF MEDICATED LOZENGES OF

The Throat Hospital
andThe British Pharmacopœias,
Jujubes and Pastilles.

Private and Proprietary

Formulae carefully Compounded.

Cachous and Compd. Pellets.

Bronchial and Compound

Sulphur Lozenges.

Chlorodyne Lozenges.

Composition Tablets.

Medicated Candies.

Worm Tablets.

Boiled Sweets.

Twemlow's Chlorodyne.

Fruit Salines.

Soluble Essence of Lemon.

OUR BRONCHIAL LOZENGES CREATE A SALE ON THEIR MERITS.**WORKS—76 GORDON STREET, LOWER BROUGHTON, MANCHESTER, & GREENGATE, SALFORD.**

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SOLUBLE ESSENCES

REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

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HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.
A Pure Essence of the Finest Ginger.
Trade Price 5/- per lb.; 12 lbs. and upwards, 4/6.


HAY'S FORTIFIED ESSENCE OF JAMAICA GINGER.
For First Quality Ginger Ale.
Trade Price 5/6 per lb.; 12 lbs. and upwards, 5/-.

HAY'S GINGER ALE EXTRACT.
For Second Quality Ginger Ale.
Imparts Pungency, Colouring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma.
Trade Price 4/6 per lb.; 12 lbs. and upwards 4/-.

HAY'S GINGER ALE ESSENCE.
For Third Quality Ginger Ale.
This Essence makes a beverage that is unsurpassed by the so-called finest Belfast Ginger Ale.
Trade Price 9/- lb.; 12 lbs. and upwards, 8/6.

THESE ESSENCES
Have obtained the Highest Testimonials from all the Medical Journals, and from the Principal Trade Journals in this and other countries.

TRADE MARK



REGISTERED

For ORANGE, VANILLA, and all other Essences,
SEND FOR PRICE LIST.

HAY'S HOP ALE ESSENCE
For the manufacture of the Finest Aerated Hop Ale. This Essence is made from the choicest Hops grown, and is unrivalled for its peculiarly fine Hop Flavour and Aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer.
Trade Price 8/6 per lb.; 12 lbs. and upwards 8/-.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.
No. 1. Highly Concentrated.
Trade Price 8/6 per lb.; 2 lbs. and upwards 8/-.

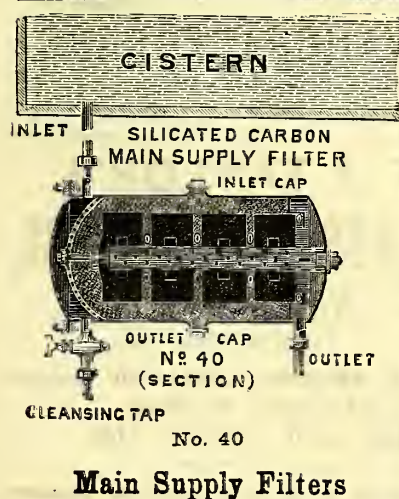
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No. 2. Makes an exquisitely fine Lemonade.
Trade Price 6/6 per lb.; 12 lbs. and upwards, 6/-.

HAY'S LEMON FLAVOUR.
Imparts a Lemonade all the Fine Aroma and Flavour of the choicest Lemons.
Trade Price 5/- per lb.; 12 lbs. and upwards 4/6.

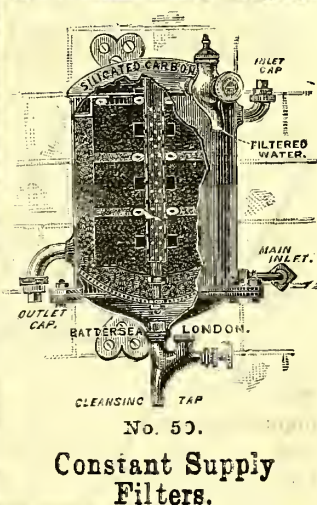
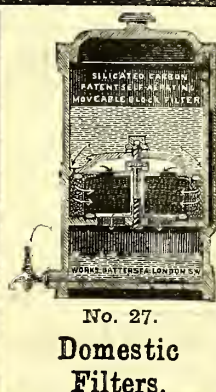
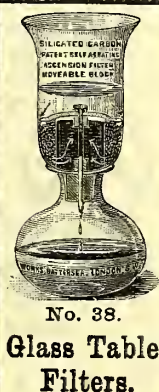
MANUFACTURING CHEMIST BEVERLEY ROAD

SILICATED CARBON

PATENT SELF-AERATING MOVABLE BLOCK FILTERS.



By the use of these Filters, which are of everyday sale, the Flatness of Taste so common in Filtered water is entirely Obviated.



WRITE FOR FULL ILLUSTRATED PRICE LISTS AND TERMS TO THE

SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.

BRAGG'S

Sold in Powder, 2/-, 4/-, and 6/- bottles; also in Biscuits, 1/-, 2/-, and 4/- tins (Children like these), and in Lozenges, 1/1½ tins (portable and convenient).

Undoubtedly the most natural preventative and curative agent in all cases of Indigestion, Disorders of the Liver, Fevers, Cholera, Dysentery, &c.

The trade cannot do better than keep these old-established and safe preparations under the notice of their customers.

VEGETABLE CHARCOAL.



SOLE MANUFACTURER—

J. L. BRAGG, 14 WIGMORE ST., LONDON.

TOBACCO

CIGARS & CIGARETTES.

M. & R. PEACOCK,
Tobacco, Cigar, & Cigarette
Manufacturers,
KINGSLAND RD., LONDON, N.E.

Sole Manufacturers of the Celebrated
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“ROYAL CHARTER”

AND

“UPPER CRUST.”

Sold in Packets only.

Those who deal in these Goods, or intend doing so should write to the above Manufacturers for Price List.

“MYRTLE GROVE” TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and ¼, ½, 1 lb. Tins only.



TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS,

SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.



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ROBINSON & WORDSWORTH,
MANUFACTURERS OF

**Genuine
Liquorice
Cakes.**

Our Goods
are of the
highest quality,
and are noted
for their purity
and flavour.

Registered Copyright Novelties,
AND A LARGE VARIETY OF
LIQUORICE CONFECTIONERY.

VICTORIA WORKS, PONTEFRACT.

18

T. & F. J. TAYLOR'S



AERATED WATERS,
Newport Pagnel.

ESTABLISHED 1835.

SODA, POTASH, SELTZER, AERATED (without Alkali), and LITHIA WATERS, LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.C.S.

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, NOV. 16, 1889.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. Orridge & Co. has been known as a Transfer Agency since the year 1843, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—**LONDON, E.C.**—Retail and Family Dispensing Business, with good speciality having wholesale demand; average returns about £1,200 yearly; good house, warehouse, &c.; well adapted for wholesale; price about £1,200.

2.—**LONDON, N.**—Dispensing and General Retail; established many years; returns average nearly £1,450, with good profits; well-fitted shop and good stock; house, with warehouse and yard, held at very moderate rental; price £1,300.

3.—**LONDON, S.E.**—Retail, Dispensing, and Prescribing; capital position for a good pushing trade; returns nearly £800; profits over the average; well-fitted shop; comfortable 8-roomed house, with private entrance; price about £750.

4.—**LONDON, S.**—Dispensing and Retail; situate in a main road; returns £700; good profits; handsome shop and very comfortable house, held on lease; about £700 required.

5.—**LONDON, S.W.**—Very old-established Business, situate in a very good class locality; returns over £500 yearly; full prices for everything; well-fitted shop and large house, with private entrance, held on a long lease at easy rental; vendor, retiring from business, will make easy terms with an immediate purchaser.

6.—**LONDON, N.W.**—Retail and Prescribing; held by vendor 20 years; present returns about £700 yearly, with profits above the average; single-fronted shop; 7-roomed house, held on good lease; vendor will accept a very moderate sum to effect an early sale, being in ill-health.

7.—**LONDON, N.**—Retail and Dispensing Business; returns £500, with good profits; well-fitted shop; 6 roomed house; rent £50 on lease; price about £500.

8.—**SOUTH OF ENGLAND.**—Seaside; Dispensing, Prescribing and Retail; very good class; held by vendor over 20 years; returns £550 with large profits; handsome shop; good house, with garden and greenhouse; price, one year's returns.

9.—**WEST OF ENGLAND.**—Fashionable town; good class Dispensing and Retail; returns average nearly £1,150; very profitable; good corner position; commanding shop; house contains 11 or 12 rooms, held on long lease; price, including lease, about £1,400, to be arranged.

10.—**SOUTH OF ENGLAND.**—Retail and Prescribing Business; established many years; present rate £500 yearly; good prices; well-fitted shop; good-sized house and small garden; very moderate rent; price about £450.

11.—**MIDLAND TOWN.**—Good-class suburban; returns about £450 from good Dispensing business; handsome shop and good stock; the house is a good one, held on lease; price about £550.

12.—**SUSSEX.**—First-class Dispensing and Retail; established many years; returns nearly £700 yearly; full prices for everything; modern fitted shop; comfortable house, with garden; rent low; price £340.

13.—**WATERING-PLACE (INLAND).**—Retail and Dispensing middle-class Business; returns £1,100 yearly; capable of very large development; neatly-fitted shop, well situated for business; good-sized house; rent very moderate; valuation of stock and fixtures only required, about £700.

14.—**MIDDLESEX** (about 12 miles from the Bank).—Small Business; very pleasantly situated; good-class Retail and Dispensing; returns about £300; can be easily increased; house has a good-sized garden attached; price about £250; capital opening for Dentistry.

Gentlemen prepared to invest about £3,000 are invited to apply to Messrs. Orridge & Co., regarding several Country Businesses, Wholesale and Retail combined.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION. Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the special attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

FOR SALE.

CHEMIST'S Stock and Fixtures for sale; cost £350; price £60, or open to an offer. Apply, J. O., 16 London Road, West Croydon.

FOR SALE, handsome Dispensing Screen, 7 ft. long, new design, £7; bent-front brush case, 25s.; pair specie jars, 30s.; 12 ft. range, mahogany-fronted drawers, glass labels, £9; 12 ft. range polished pine ditto, stained mahogany, gold labels and glass knobs, £6 12s.; mahogany case and desk, 55s.; sloping plate-glass case, 36 by 18, 35s.; nest 46 mahogany drawers, with cupboards under, second-hand, 70s.; 180 gold-labeled rounds, jars, and syrup bottles, new, gold labelled, £9; 12 ft. mahogany-top counter, pitch pine front, second-hand, £4 10s.; four 4-gallon carboys, 10s. each; three 8-gallon ditto, second-hand, with cut stoppers, 15s. each. R. Tomlinson & Sons, Medical Fitters, Bond Street, Constitution Hill, Birmingham.

PARTNERSHIP.

RARE Investment.—Proprietor wishes to treat immediately with gentleman having £250 to invest in the purchase of Half Share in old-established Business, just converted into the store system of trading; fully answering expectations of large returns on further development; a chance seldom offered. "Statim," 42 Castle Street, Shrewsbury.

TO LET.

TO Chemists and Druggists.—To be let, on the Parade, Forest Hill Station, handsome double-fronted Shop; good residence; side and back entrances; rent moderate, and will help in fitting. Apply on the premises, or to R. Hall, 168 Spa Road, Bermondsey.

BUSINESSES WANTED.

WANTED, small Business; payable by instalments, deposit given, by energetic man. W., 113 Riversdale Road, Highbury, N.

WANTED, a good sound Business, returning from £700 to £1,000; no use replying unless returns and profits can be verified. "Tinct," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a genuine Retail, Dispensing, and Prescribing Business within 100 miles of London or good suburb; returning £800 to £1,100; cash at command for a genuine concern. Full particulars to be sent (in confidence) to W. C. H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A GENUINE Light Retail and Dispensing trade; price from £900 to £1,000; Midlands or South of England preferred, but not absolutely essential, and returning about £1,000 per annum at fair profits. Send full particulars, and state size of house, &c., to B. E., 71 Lewisham Road, Greenwich, Kent.

F. J. BRETT, VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

LONDON, S.W.—£1,200 returns, including £400 in Gilbey's and appointment worth £65 per annum; good house, garden; pretty suburb; unopposed; price £800.

LONDON, S.E.—£700 returns; branch; can be much increased by personal attention; to man with small capital an exceptional chance; at valuation of stock and fixtures about £250.

LONDON, S.W.—£520 returns; more than half profits; everything full prices; good chance for gaining insight to dentistry; price £350.

LANCASHIRE.—£850 returns; good paying concern; changed hands twice in 60 years; vendor, like his predecessors, has realised a competency, and retires; price £750.

LEICESTERSHIRE.—£1,000 returns.—Good class Retail and Agricultural in peasant market town; convenient house; agency worth £25 per annum; price about £800.

STAFFORDSHIRE.—£600 returns; fine position in populous town; good specialties; capital chance for pushing trade; valuation about £300.

YORKSHIRE.—£450 returns; good town; profitable Light Retail; ample scope for Mixed trade; desirable position; price £350.

SOMERSET.—£900 returns; seaside; Light Retail, Prescribing, and Dispensing; good house; rent £40; no heavy trade; price £700, or small premium and valuation.

LONDON (City).—£3,000 returns; Light Retail with Surgeon's Wholesale; net profit over £700; price about £2,000.

CORNWALL.—£450 returns; unopposed Retail; increasing; agency nearly pays rent and taxes; price £250.

LIVERPOOL.—£600 returns; good-class Retail; price £400.

LIVERPOOL.—£600 returns; Light Retail and Dispensing; good shop and house in pleasant situation; price about £500.

NOTTS.—£1,200; Retail, with Gilbey's agency; present hands many years; valuation £700, or can reduce stock.

DERBYSHIRE.—£1,000 returns; Light Retail, Dispensing, &c.; good house; favourite town; valuation about £600.

To Parties refitting.—F. J. Brett is instructed to offer the entire fittings and stock, either separately or together, of a well-stocked shop on advantageous terms.

MESSRS. BERDOE & CO.

CHEMISTS' TRANSFER AGENTS & VALUERS,
30 JEWRY STREET, ALDGATE, E.C.
Established 1870.

VENDORS will find our Offices a quick medium for the Sale of genuine Businesses. Strict confidence guaranteed. Several good-class Businesses wanted returning £700 to £1,500. Town or country.

PURCHASERS are invited to apply (stating their requirements) for particulars of businesses, sent free on application.

NO CHARGE TO PURCHASERS.

MESSRS. BERDOE & CO. have for Transfer:—

SURREY.—Attractive locality; unopposed old-established Light Retail and Dispensing Business; returns £1,200; net profit £400; low rent; good house and garden; price £800; strictest investigation allowed.

GLOUCESTERSHIRE.—Small market town; Light Retail, Dispensing, and Prescribing Business; returns £700; rent £28; convenient modern house; slight opposition; price £450, simply value of stock and fittings.

NORFOLK.—Unopposed Retail and Prescribing, returning £500; rent £16; well fitted and stocked; good house and garden; price £350.

DEVONSHIRE.—Same hands 20 years; Retail, Dispensing, and Prescribing; returns £800; net profit £350; fine corner position in important seaside town; price £475; good introduction given.

MONMOUTHSHIRE.—Charming locality; Retail, Dispensing, and Prescribing; same hands 26 years; good house; rent £20; returns £500; retiring through old age; price £400, £100 can remain.

SURREY.—20 miles out; unopposed Retail, Dispensing, and Prescribing; returns £400; rent £30; nice house and garden; price £260.

LONDON, S.E.—Main road; very old-established Retail, Dispensing, and Prescribing Business; returns £800; net profit £350, after paying all expenses; handsome shop; heavy stock; price £750.

LONDON, W.—Retail, Dispensing, and Prescribing; returns £1,100; handsomely fitted; good house; low rent on lease; price £800.

LONDON, S.W.—Elegantly fitted, double-fronted, corner Retail and Dispensing Business; returns £400, should do £700; unopposed position; large increasing locality; price £300, less than valuation.

Terms for Valuation and Sale on application.

Messrs. Berdoe & Co., 30 Jewry St., Aldgate, London, E.C.

Mr. G. B. CROCKER,

Trade Valuer, Transfer Agent, & Accountant,
15 WALBROOK, E.C.

MIDLANDS.—Country Retail and Dispensing with Stationery; returns £500; net profit £180; valuation of stock and fixtures only.

SOMERSET.—Retail and Dispensing; returns £550; price £500; an exceptionally sound and reliable investment; many years same hands.

STAFFS.—Retail, Prescribing, Dispensing; returns £1,000; price £800; good house and garden; no heavy; scope for increase.

HANTS.—Old-established Retail and Dispensing; returns £800; price £450; handsome Pharmacy; good house; owner retiring.

HOME COUNTY.—Family and Dispensing; returns approach £700, and rapidly increasing; valuation terms can be arranged.

LONDON (WEST-END).—Good-class Dispensing; returns £800; price £600; satisfactory reasons for selling.

LONDON, S.W.—Good-class Family and Dispensing; returns £620; rent £30; price £550; good house and garden; handsome Pharmacy.

Valuations for Probate or Transfer conducted in any part of the United Kingdom. Terms on application.

MR. SYDNEY GREENWOOD,

Chemists and Druggists' Transfer Agent, Valuer to the
Drug and Allied Trades,

PITTVILLE HOUSE, Lea Bridge Rd., CLAPTON, N.E.

1. **LONDON, E.C.**—Returns £1,500; corner; 73 ft. frontage; 21 years' lease, at low rental; suit Wholesale or Retail; important main thoroughfare; price £1,000; £600 remain. Another, £750; price £400.

2. **KENT COAST.**—Returns £1,500; old-established Business in fashionable town; large shop, splendid house; low rent; sacrifice for £600; handsomely fitted and stocked; part can remain.

3. **STAFFS.**—Returns £1,000; rent £40; mixed cash trade at full prices (several Proprietaries); valuation. Another, returns £1,000; noble looking shop; established 30 years; good house; very profitable trade; low rent; well fitted; price only £750.

4. **BERKS.**—Returns £430; rent £45; established 1820; genteel locality, in best part of town; no opposition; Light Retail, Dispensing, and Prescribing Trade at full prices; will accept £315 to immediate purchaser.

VALUATIONS

A Speciality. Write for terms to Mr. SYDNEY GREENWOOD, who will give the matter his prompt attention.

BUSINESSES FOR DISPOSAL.

CHEMIST'S Business for sale; first-class Dispensing and Retail; returns £800; in W.C. district, good position and thoroughfare. For particulars apply by letter to "Chemist," Norfolk House, Cintra Park, Upper Norwood, S.E.

A BARGAIN for Cash.—In a large town, first-rate position, a good Mixed Business to be disposed of; good reasons for sale; stock, &c., at valuation; immediate possession if required. Apply to F. Homfray, Crab Tree Farm, Kirby Wiske, Thirsk.

THE only Chemist and Druggist's Business in Low Moor and populous districts; good profits; prescribing and tooth extraction; established over 50 years; best shop in neighbourhood; good house (can be sold). Inquire of Humphries & Co., Wholesale Druggists, Bradford.

CHEMIST, Druggist, and Dentist wanted for a populous neighbourhood; shop recently very much improved, where business has been carried on for 50 years; central position; a capable and energetic man would find here an excellent opportunity; rent moderate. A. Bryant, Nether Stowey, Bridgwater.

LANCASHIRE.—Light Business in good town; established 6 years; good opening for Surgeon Dentist; valuable proprietaries included; shop splendidly fitted; purchaser will be well introduced; good reasons for selling; £200. Address, "Malleus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CHEMISTS or Surgeons.—The proprietor of a Chemist's Business is desirous of retiring after 42 years' steady trade; special preparations; advantageous terms furnished on personal application to any gentleman having the necessary means. Address, Y. Z., Miss Atkinson, 40a King William Street, London, E.C.

FOR sale, the old-established Family and Dispensing Chemist's and Mineral Water Business at Selby, in Yorks, successfully carried on for 40 years by Messrs. Cutting & Son, with the freehold of the premises; the shop is well fitted, and the mineral-water plant partly new. For terms, &c., apply to Union Bank, Easingwold.

CHEMISTS and Druggists.—Thickly-populated western suburb; old-established Business for disposal; has been recently neglected, but rare opening for beginner; nice house and garden; rent moderate; the superior fixtures, fittings, stock-in-trade, all included, for £60. Apply to Mr. Drake, 343 Harrow Road, Paddington, W.

£450.—Within one hour's ride of the City, an old-established Light Retail and Prescribing trade; over 50 years in same hands, and of late much neglected; returns for past year £620; very profitable; price £450 or valuation. Address for particulars, L. L., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

COUNTRY Chemist's Business; unopposed; 50 miles from London, with Wine and Spirits; average returns for last 3 years about £800; good house and garden, with convenience for a large trade; price £300. "Chemicus," care of Evans, Lescher & Webb, 60 Bartholomew Close, London.

LONDON, S.W.—In main road, an old-established Dispensing and Prescribing Business; returns under manager £500; large house and shop; rent low; any reasonable offer accepted; owner having larger business, which requires his sole attention. For full particulars write to "Chemist," 112 Sandmere Road, Clapham, S.W.

CHEMIST and Druggist Business to be sold; splendid position in densely populated locality; capital house, which could be let off; shop with modern fittings; first-rate opening for an energetic man; rent £40; price £200, to include stock and all fixtures. Apply to Mr. Alfred Richards, Auctioneer and Estate Agent, Tottenham.

£300.—**MONMOUTHSHIRE** Iron and Coal District; established 30 years; proprietor retiring; genuine Prescribing, Dispensing, and General Retail business; ready-money; full prices; shop large and convenient, nicely fitted and well stocked; rent £26. Apply, "Iron," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DEVON.—St. Mary Church, 1 mile from Torquay; a small Branch Business, Light Retail and Dispensing; good house and shop; rent £27; the business has been managed by female; could be considerably increased by personal attention, also by adding a mixed trade; open and healthy situation; price about £150. Apply to Proprietor, 50 Union Street, Torquay.

MANCHESTER.—In consequence of illness, a good-class Retail, Dispensing, and Prescribing trade, with some very good Proprietaries; shop is good, and in excellent suburban position and very good house attached; returns £700; yield a net profit of £330 per annum; price £500. Apply, "Manchester," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DEATH Vacancies.—London, for cash only; an old-established genuine Dispensing, Retail, and Prescribing Business, in same hands fifty years, last three under management; busy thoroughfare, populous neighbourhood; good house, excellent repair, long lease; returns about £800; could be much increased by personal attention. Also genuine old established Retail and Prescribing ready-money Business; busy locality; returns under manager £500; good stock; modern fittings; extension of lease upon favourable terms; unusual opportunity for an energetic man used to prescribing; no agents. Apply, Ramsey, 36 Clifton Villas, Lincoln Road, East Finchley, N.

SALES BY TENDER.

SALE BY TENDER.

F. J. BRETT is instructed to Sell by Tender, by Mr. J. W. B. Beman, 53 Great George Street, Leeds (who is going abroad), on Thursday, December 5th, the old-established Light Retail, Dispensing, and Prescribing Business, together with the Proprietary Articles belonging thereto, in one lot as a going concern; the shop is well stocked and fitted, and in good position; in consequence of severe illness the Vendor has not been able to give it the necessary personal attention desirable, but to an energetic man there is ample scope for doing a large and profitable trade. For Tender forms and further particulars apply to F. J. Brett, Leicester.

3 THE PARADE, EAST PUTNEY, S.W.

MR SYDNEY GREENWOOD has been instructed to Sell by Tender, in one lot, as a going concern, the Fixtures, Fittings, Utensils, and Stock-in-Trade of a newly-fitted Chemist's Shop, on account of owner having unexpectedly accepted an appointment, good residential locality, 8-roomed house, bath (hot and cold supply); offers a rare chance to any young man about to start in business for acquiring a really good business tastefully fitted and well stocked, at a moderate figure. Tenders will be received by Mr. Sydney Greenwood, Chemists' Valuer and Transfer Agent, at Pittville House, Lea Bridge Road, Clapton, County of London, up to November 27, 1889, and of whom full particulars and printed forms can be had on application.

APPRENTICESHIPS.

A VACANCY now occurs in a well-established trade for an Apprentice, where, under the personal instruction of the proprietor, he could acquire a knowledge of every branch of the business. For terms apply Gardiner, Chemist, 3 St. Giles, Norwich.

APPRENTICE required immediately, and one in January; preferably outdoors, but not necessarily; must have passed Preliminary examination, or some equivalent; premium required; over 3,600 new prescriptions dispensed annually; a considerable number of Pharmaceutical preparations manufactured upon the premises. J. Cowper, F.C.S., Pharmaceutical Chemist, Penrith.

SITUATIONS OPEN.

WANTED, an efficient hand in the Pil Department. Apply, personally, Messrs. Gale & Co., Wholesale Druggists, 15 Bouverie Street, London.

WHOLESALE.—An experienced Assistant wanted for Wet Counter in a London House. S. F., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT with knowledge of Dentistry; permanency and progressive salary. "Mid," Messrs. Maw, Son & Thompson, 12 Aldersgate Street, London.

SMART Junior wanted; a live reliable trustworthy Assistant required. Apply, "Kensington," Davy, Yates & Routledge, 64 Park Street, S.E.

WANTED immediately, an Assistant (outdoors). Apply, giving full particulars, to D. P. Roberts, Drug and Chemical Store, North End, Croydon.

AT once, a qualified Assistant with good dispensing and counter experience. Apply to Thos. H. Stewart, 107 Old Town Street, Plymouth.

JUNIOR or Improver wanted; state age, salary, &c., and enclose carte. Wm. Rogers, The Supply Stores, Church Street and Stafford Street, Bilston, Staffordshire.

RESPECTABLE young fellow wanted in office; not less than 16 years; may be just from school. Apply, "Chemically Pure," Cale Street Distillery, Chelsea.

PARIS.—Wanted, a thoroughly competent Dispenser, speaking French fluently. Apply personally or by letter (with photo) to Mr. Weston, Chemist, Westbourne Terrace.

WANTED, qualified Assistant, accustomed to Mixed Business; must be steady and of good business habits. Apply H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR or Improver in good class Dispensing and Agricultural business. State age, height, experience, and references, enclosing photo, to Walter Gregory, Welington, Somerset.

CHEMIST.—Wanted, qualified Dispenser. Apply, enclosing photo, giving full particulars, age, and wages expected, to 144/40, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED immediately, a competent Assistant; must be accustomed to a country trade, have good references, and understand Welsh. Apply, stating particulars, to J. Harrison Jones, Denbigh.

MANAGER; country branch; qualified; must have unquestionable reference; good salary given; must extract teeth; married preference; one who has mixed Yorkshire experience. X., Woolley, Sons & Co., Manchester.

WANTED, an Assistant for Light Retail and Dispensing business. Send full particulars, age, height, salary required, and, if possible, enclose carte (which shall be returned) to W. Pitchford, 54 Cotham Hill, Cotham, Bristol.

YOUTH as Dispenser wanted by a Doctor, in a town of 12,000, 20 miles from London; time for other work; hours approximately 9 to 10, 3 to 4, 7 to 8; terms at rate of £30 a year (outdoors). Apply to Dr. Stirling, G. G. G. Essex.

AN Assistant, with a good knowledge of Mechanical Dentistry. Apply by letter, with full particulars as to experience, age, height, and salary required, to "Dentist," care of Messrs. Maw, Son & Thompson, 11 Aldersgate Street, E.C.

WANTED immediately, trustworthy qualified Manager, for a small country business; single and abstainer; salary moderate; very comfortable home. Apply, with full particulars and enclose photo, to Mrs. Hall, High Street, Kelvedon, Essex.

WANTED, Junior Assistant; one used to a good country trade, who can be well recommended by his last employer, and of reliable good character. Apply, stating full particulars, &c., send photograph if possible, to be returned, to D. Prosser, Sheerness.

TRAVELLER.—Wanted, a thoroughly competent man (Chemist preferred) to push specialities among Wholesale and Retail Chemists and Druggists; salary and commission. Address, F. G. & Co., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AN Assistant wanted, accustomed to a Family and Dispensing business; Minor qualification. Send particulars with photo (which will be returned), state salary required (indoors), age, height, and references, &c., to J. P. Provost, Pharmaceutical Chemist, Huntingdon.

YOUTH wanted, from 15 to 18 years of age, in Patent Medicine department of Wholesale house; must have an undeniable character. Write, stating age, previous experience, and wages required, to T., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED at once, a Junior Assistant, used to good Retail and Prescribing business; steady and obliging. Apply, stating references, age, height, salary required, &c. (enclosing photo, to be returned), to W. E. Stokes, 22 High Street, Brompton, Chatham.

WANTED, an experienced, trustworthy Assistant, not under 30; an abstainer and one seeking a permanent situation preferred. Apply, stating age, height, and salary required, enclosing references and photo (which will be returned), to F. A. Graham, Chemist, Stockton-on-Tees.

BRANCH Manager wanted; Prescribing, Tooth Extracting, and General light Retail; good experience; abstainer preferred; mutual terms are offered. Apply, with references, photo (to be returned), salary asked, &c., to W. Hindle, High Street Dispensary, Gileston, Great Yarmouth.

ASSISTANT; qualified; accustomed to Mixed Country business; about 23; careful Dispenser; able to Prescribe, good Counterman, &c. Applicants please state age, when disengaged, salary (indoors), enclose photo, and give fullest references and experience, to C. B. Shuker, Launceston.

ASSISTANT wanted; qualified preferred; one who would accept as part of salary an unfurnished flat consisting of 3 rooms and kitchen, with all conveniences of private house in same; splendid opportunity for married Assistant. Apply, personally, to Gardner, Chemist, 485 King's Road, Chelsea.

THOROUGHLY competent Pharmacist wanted; age should not exceed 25 years; must be accurate in figures, able to take entire charge of cost book, and be experienced in purchase of drugs; knowledge of bookkeeping also necessary; a permanent position for a first-rate man. Address, stating age, salary, experience, and qualifications, to S. K. & Co., care of 83 Lichfield Road, Bow, E.

IMMEDIATELY.—An obliging and industrious Turnover or Improver for General, Retail, Dispensing, and Photographic business and branch; must be trustworthy and of good address; tooth extractor preferred. State age, experience, and salary required (outdoors), enclosing photo and references, to J. W., The Pharmacy, 67 Heeman Street, Grimby. Also an outdoor Apprentice.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

AS Dispenser; Minor and Apothecaries' Hall; disengaged. Turner, 12 Monneroy Road, N.

PART-TIME; outdoors; London experience. C., 16 Priory Park Terrace, Kilbarrn.

JUNIOR; aged 22; good references; Minor. B. C., 126 Newington Causeway, S.E.

JUNIOR; aged 23; Yorks or Lancs preferred; Wesleyan. Broadley, 5 Baigate, Lincoln.

JUNIOR or Improver; wholesale or active retail. "Chemicus," 138 Stanhope Street, N.W.

ASSISTANT; mixed country business. H. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; outdoors or Branch; good Prescriber; aged 24. "Surrey," 39 Crown Terrace, Richmond.

ASSISTANT; 24; abstainer; moderate salary; good references. 43 Lordswood Road, Harborne, Birmingham.

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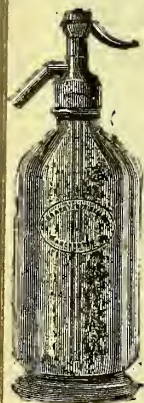
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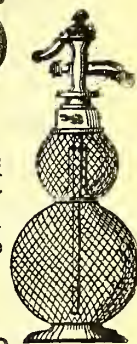
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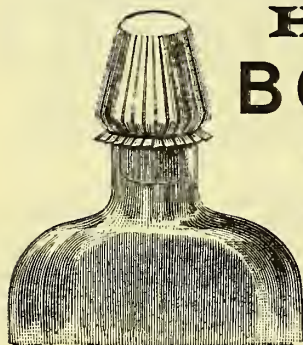
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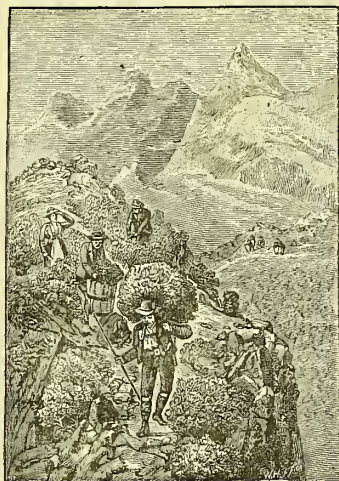
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ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

NOTE.—The Folios shown in this Index are those at the FOOT of the Page, and not at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of Page	Foot of Page	Foot of Page	Foot of Page
Alofas Co. 56	Eades' Gout Pills 42	Liverpool Lint Co. 9	Roche, Tompsitt & Co. 37
Anglo-American Oil Co. (Lim.) 55	Elliman, Sons & Co. Text 692	Lloyd, Mrs. A. S. 12	Rookledge, J. 54
Apollinaris, The, Co. 16	Employers' Liability Assurance Corporation (Lim.) 52	Loftthouse & Saltmer. 38	Rouse & Co. Text 692
Text 692, Cover	Eschmann Bros. & Walsh. 7	London Hospital and Medical School 6	Sainsbury, S. 53
Austin & Co. 48	Evans, Sons & Co. 4, Cover	Longmans, Green & Co. 6	Sanders, H. G., & Sons. 22
Australian Drug Co. 34	Evans & Sons (Lim.) 4, Cover	Lunberger Wax Bleaching Works 57	Sanford & Son. 57
Australian Meat Co. 23	Evans, Lescher & Webb, London 4	Lynch & Co. Cover	Sanger & Sons. 43
	Text 692, Cover		Sanitas, The, Co. Text 692
Baelz, R., & Co. 41	Felton, Grimwade & Co. 37	Marion & Co. 30	Seabury & Johnson. 52
Baker, J., & Sons. 46	Ferris & Co. 31	Marshall, J. 25	Self-opening Tin-box Co. 46
Barnett & Foster. 21	Fink, F., & Co. 56	Mather, W. 23	Shirley, A. W. 53
Barrett, R. H. 48	Fitch & Nottingham. 22	Maw, S. Son & Thompson. 11, 44	Silicated Carbon Filter Co. 17
Barron, Harveys & Co. 32	Fletcher, Fletcher & Stevenson Text 692	May & Baker. Cover	Silvercock, H. 8
Battle, J. R. 54	Ford, Shapland & Co. 8	May, Roberts & Co. 40	Simon, J. 13
Beach, J., & Sons. 56	Fuerst Bros. 33	Milner, A., & Co. 23	Smith, S., & Co. 57
Becker, F. E., & Co. 56	Godfrey & Cooks. 10	Müller, P. 42	Solen Mineral Product Co. (Lim.) 41
Bewlay & Co. 42	Goodall, Backhouse & Co. 20	Moss, J., & Co. Text 692	Soul, W. H., & Co. 34
Billault. 58	Greenhill, T. S., & Son. 13	Monilla Liquid Soap Co. (Lim.) 56	Southwell, Gas, & Co. 23
Blake & Mackenzie. 58	Greenwood, S. Coloured Supplement	Mumford, G. S. Text 692	Spirone, The, Co. 10
Blondeau & Cie. 6	Hamilton & Co. 54	Murray, Sir James, & Son. 43	Spon, E. F., & N. 6
Blyton, T. Bage, & Co. 16	Hargreaves, Dr. M. K., M.D. 7	Muter, Dr. 7	Steedman, J. 22
Bowdlear, W. H., & Co. 54	Hay, W. 17	Natali, E. 50	Stern, G. & G. 24
Bowers Bros. 6	Haynes & Co. 56	Newbery, P., & Sons. 27	Stokes, G. R., & Co. (Lim.) 51
Bowling & Gouvier. 50	Hearn, E. A., & Co. 46	Noakes, B., & Co. Text 692	Summer, R., & Co. Cover
Bradley & Bourdies. 6	Hoeking, Wilson & Co. 49	Ofinger, E. 56	Switt Specie Co., The. 30
Brady & Martin. 32	Holloway, P. 22	Oldfield, Pattison & Co. 3	Taddy & Co. 18
Bragg, J. L. 18	Holroyd, J., & Co. (Lim.) 50	Oppeheimer Bros. & Co. 41	Taylor, F. & F. J. 18
Braunwell, E., & Son. 56	Hooper, W., & Co. Cover	Peacock, M. & R. 18	Toogood, W. 47
Bratby & Hinchliffe (Lim.) 21	Hopgood & Co. 12	Peake, Allen & Co. 33	Townsend, J. 6
Brett, F. J. Coloured Supplement	Hovenden & Sons. 13	Petersen, P. J., & Co. 38	Treat, R. C. 12
Brodie, J. 12	Hunt, W. F., & Co. 22	Phillips, G., & Co. 52	Treble, G., & Son. 53
Brunner, Mond & Co. 33	Hyde, Nash & Co. 56	Pontifex & Wood (Lim.) 52	Truefitt, H. P. (Lim.) 13
Buttroughs, James. 52	Isaacs, I., & Co. 52	Potter & Clarke. 19	Tucker, J., & Co. 42
Buttroughs, Wellcome & Co. 29, 30	Jewsbury & Brown. 12	Powell, A. E., & Co. 45	Tyrer, P. 23
Bygrave, J., & W. 46	Kay Bros. (Lim.) 7	Prosser, Taylor & Co. 35	United Kingdom Tea Co. 23
	Keith, B., & Co. 36	Pure Malt Extract Co. 5	
Cadbury Bros. Cover	Kemphorne, Prosser & Co. 33	Quilliam, J., & Co. 56	
Carter, J. H. 46	Kent, G. B., & Sons. 22	Rankin & Borland. 42	Walker, Troke & Co. 54
Central School of Pharmacy. 6	Knight & Co. 44	Raphael, J., & Co. 7	Warrick Bros. 22
Chalmers, W. B. 48	Koptica Cure. 40	Reidman's Stomach Wash. 56	Watson & Wates. 57
City School of Pharmacy. 6	Layng, R. C. 56	Rich, E. C., Co. 38	Wedgwood, J., & Sons. 52
Clark, S., & Co. 51	Lennon, B. G., & Co. 37	Robinson, H. 16	Wilkinson, A., & Son. 57
Clay, Doi & Co. 32	Levermore, Ang., & Co. 56	Robinson & Sons. 41	Wood, Thomas. 15
Cocking & Co. 37	Levy, Julius. 36	Robinson & Wordsworth. 18	Wood, Vincent. 10
Colthurst & Harding. 52			Wright, Layman & Umney Text 692
Cooper & Co. 42			Wright, W. V., & Co. 50
Corsan, J. R. 7			Wythe & Co. 3
Crouch, F. B. 33			
Davis, J., & Co. (Lim.) 8			
Deaenayer's Peptone Co. 16			
Downie, B. J. P., Co. 42			
Dukes, B. 6			
Durrant, G. 56			

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

AERTE & MINERALS	AGENCIES ABROAD	BAKING POWDER	BOTTLE CAPPING	CAPSULES
Apollinaris (Hungarian) Aperient Water, Diamond Mark, Friedrichshall Apollinaris Barnett and Foster Oatley Abbey Mineral Water Chemists' Aerated Waters Association Davis, R. Ellis (Kuthin) Hassall and Co. (Citric Acid Phospho) Hay, W. Jarris and Co. Jewsbury and Brown Mills and Co. (Bourne) Taylor, T. and F. J. [See GINGER ALE.]	Australian Drug Co. Cocking and Co. (Japan) Felton, Grimwade and Co. (Melbourne) Fougere and Co. (New York) Kemphorne, Prosser & Co. N.Z. Lennon, B. G., and Co. Levy, Jules Peake, Allen and Co. Petersen, P. J., and Co. Prosser, Taylor and Co. Rich, E. C., Co. Roberts (Paris, & Co.) Roche, Tompsitt and Co. (Mel- bourne) Soul, W. H., and Co.	Dunn, W. G., and Co. Goodall, Backhouse & Co. BEESWAX Bowdlear, W. H., and Co. Lunberger Wax Bleaching Works BICARB. SODA Brunner, Mond and Co., Lim. Howards and Sons May and Baker BISMUTH, PREP. Hearon, Squire and Francis Hewlett and Sons Howards and Sons May and Baker Symes and Co. White, Alfred, and Sons BLOOD MIXTURE Lincoln and Midland Counties Drug Co. BOOKS Davis, J. Gurney and Jackson Hargreaves, Dr. Longmans, Green and Co. Spoe, E. and F. N. Whitla, W., and Co. BOTANIC BEER Newball and Mason BRUSHES Dukas and Co. Furdman, W. B., and Sons Kent, G. B., and Sons Moseley, David, and Sons	Beach, J., and Sons Hunt, W. F., and Co. BOTTLES Aire and Calder Bottle Co. (Ld.) Barnett and Foster Barrett, R. H. Bratby & Hinchliffe (Ld.) Brett's (Lim.) Evans, Sons and Co. Gilbertson, H., and Sons Hearn, E. A., and Co. Hunt, W. F. (Caps) Isaacs and Co. Kilner Bros. Maw, Son and Thompson Poths, H., and Co. Sanders, H. G., and Son Shirley, A. W. Toogood, W. Youldon, E. BOXES Austin and Co. (Cardboard) Ayrton and Sammers Chalmers, W. B. Noakes, B., and Co. Owen, J., Jr. Parmenter, I. W. & Co. Lim Robinson and Sons Self Opening Tin Box Co. BUTTER CUP, &c. Johnsen and Jorgensen Winfield, Fattinson and Co.	Donoual, J. (Medicinal) Duncan, Flockhart and Co. Evans, Sons and Co. Hooper, B., and Co. Maw, S. Son and Thompson Robertson C. J., and Co. CAPSULES (METALLIC) Bette and Co. Brooks, Peal and Co. Gard, C. (Bacon) Sanders, H. G., and Son CSCRA SACRADA Duncan, Flockhart and Co. Evans, Sons and Co. Farris and Co. Moss, J., and Co. Squire and Sons CASTOR OIL Fuerst Bros. CATALOGUE Evans, Sons and Co. Maw, Son and Thompson May, Roberts and Co. Sanger and Son Schnitzer, F., and Co. CEMENT Kay Bros., Lim Kumford, R. CHALK PRECIP. Dunn and Co. Levermore, Ang., and Co. White, A., and Sons

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INE [See MARKING]

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Hockin, Wilson and Co.
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Shirley, A. W.

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Meuphrosine Mfg. Co.
Newberry and Sons.
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Greenall, T. S., and Son
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Mouilla Liquid Soap Co. (Lim.)
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NOVEMBER 16TH.

[1889.

LANOLINE (LIEBREICH).

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The readiness with which Lanoline penetrates the horny layer and is absorbed by the skin gives it precedence over all mineral oils. It is easily and perfectly miscible with all kinds of medicaments. Combined with a trace of carbolic acid it forms a most valuable application for irritation of the skin, relieving the itching of eczema, urticaria, etc., also the swelling and irritation due to the bites of insects.

Lanoline (Liebreich) tends to restore the pliancy of the skin, so deficient in advanced age, and removes the hardness and dryness so troublesome to many people; on this account Toilet Lanoline and Lanoline Cold Cream are very eligible toilet preparations. Lanoline also "conserves the heat which the old readily part with and less easily regain" (*Diseases of the Skin*—Jamieson).



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On account of its sticky nature, Lanoline was objected to by some physicians, but this objection has been overcome by the introduction of a Lanoline Ointment base—Unguentum Lanolini. This Unguentum Lanolini is applicable wherever, formerly, lard or any other old ointment bases have been used. Its advantages may be summed up as follows:—1. It never turns rancid. 2. It is grateful to the tenderest skin. 3. It is non-sticky, and can be readily washed off. 4. It is aseptic; no bacteria or microbes can live in it, or pass through a thin layer when spread over a fresh wound.

Lanoline (Liebreich) supplied to the Trade in 1-lb. and 7-lb. tins at 2s. 8d. per lb. Anhydrous Lanoline (Lanolinum Anhydricum), at 3s. 4d. per lb. Lanoline Base (Ung. Lanolini), 2s. 2d. per lb. Anhydrous Lanoline Base, 2s. 10d. per lb. Ceresin, 1s. 6d. per lb. Paraffinum Liquidum, 1s. per lb. (packages extra). Lanoline Cold Cream supplied in pots at 14s. per doz. Lanoline Hazeline Ointment, in pots at 14s. per doz. Lanoline Pomade, in pots at 14s. per doz. Lanoline Toilet Soap, 8s. per doz. Lanoline Eucalyptine Soap, 8s. per doz. Lanoline Pinol Soap, 8s. per doz. Toilet Lanoline, in tubes at 4s. 6d. per doz. Lano-Creolin, in tubes at 9s. per doz.

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In ulcerative and diphtheritic sore throat, tender gums, toothache, bleeding sockets, employ as a gargle, or by means of Wallich's Inhaler.

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This well-known essential oil of *Pinus Pumilio* is now largely used on the Continent in affections of the respiratory tract, including clergyman's sore throat, aphonia, asthma, pertussis, chronic bronchitis, bronchorrhœa, and phthisis as a stimulant expectorant. It is also employed externally for pleuritic and intercostal pains. It is frequently prescribed in inhalations by means of the Ammonium Chloride Inhaler (Vereker), or Wallich's Inhaler.

Pinol supplied to the trade in $\frac{1}{2}$ -oz. and 1-oz. bottles, at 15s. and 24s. per doz. Pinol Extract supplied in bottles, at 9s. per doz. Pinol Pastilles supplied in boxes, at 9s. per doz. Pinol Vaporoles, for hot inhalations—one is sufficient for use with $\frac{1}{2}$ pint of hot water—24s. per doz. boxes.

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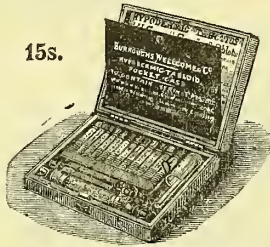
It was with this preparation that the original experiments were made, "its systematic use being followed by marked improvement in every case of winter cough" (Dr. Murrell), and it is to the irritating and impure qualities of inferior and cheap imitations that much of the want of success in certain cases has been due. Pure Terebene (B. W. & Co.) is bland, unirritating, and of a most delicate and pleasant odour. The results obtained with it in chronic bronchitis and flatulence, and some kidney and bladder troubles, have been remarkably satisfactory.

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Covaine	1-6, 1-, and 1-3 gr.
Colchicin	1-100 gr.
Cornuain	1-60 gr.
Curare	1-12 gr.
Digitain	1-100 gr.
Ergotin	1-150 gr. and 1-300 gr.
Eserin	1-100 gr.
Homatropin (unirritating)	1-250 gr.
Hydraz. Perchlor.	1-60 and 1-30 gr.
Hyoscyamin	1-80 and 1-10 gr.
Hyoscine	1-200 and 1-75 gr.
Morphine Bi-Meconate, 1-8, 1-6, 1-4, and 1-3 gr.	
Morphine Hydrochlorate	1-4 gr.
Morphine Sulphate, 1-12, 1-8, 1-6, and 1-4, 1-3, and 1-2 gr.	
Morphine and Atropine combinations.	
Pilocarpin	1-10, 1-3, and 1-2 gr.
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See *Recommendatory Notice of Medical Press and Opinions of the leading Dermatologists.*

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The *Practitioner* of September, 1881:—"Eczema connected with varicose veins of the leg—also Pruritus Scroti, Labiorum, and Ani—is best relieved by weak tarry lotions, one of the best of which is *Wright's Liquor Carbonis Detergens*."

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From the *Medical Times and Gazette* Jan. 19, 1867:—"We have more than once called attention to the value of this remedy in chronic eczema."

From the *British Medical Journal*, Sept. 22



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For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

Literary Contents.

	PAGE	Editorial Notes—cont.	PAGE
Australian News	699	The Sale of Food & Drugs Act	694
Bankruptcy Reports	689	The Petroleum Supply	695
Castor-oil Adulteration. By M. Conroy	685	French Pharmaceutical News Gazette	690
Commentary	695	General and Provincial News	684
Correspondence:—		Legal Reports	687
Pharmaceutical Society v. Wheeldon; The Sale of Poisons; Paris Awards, &c.	704	Metropolitan Reports	678
Influenza Remedy; Variegated Show-bottle	705	Personalities	696
Legal Queries	706	Pharmaceutical Mayors	691
Dispensing Notes	706	Pharmaceutical Society of Great Britain: Evening Meeting	682
Miscellaneous Inquiries	707	Pharmaceutical Society of Ireland	682
Editorial Notes:—		Provincial Reports	678
The Unqualified Seller of Poisons	692	Railway Rates	698
Newcastle Chemists and the Medicine Stamp Acts	693	Trade Notes	698
		Unqualified Seller of Poisons: Sheffield Meeting	686

POST-CARD COMPETITIONS.

WE have been asked to reopen these competitions, which some time ago furnished some useful and interesting suggestions. We think the time is opportune, therefore, by this means to ask for assistance and advice on behalf of our old friend Mr. Blank, chemist and druggist, of Dulltown, who wants to know what is

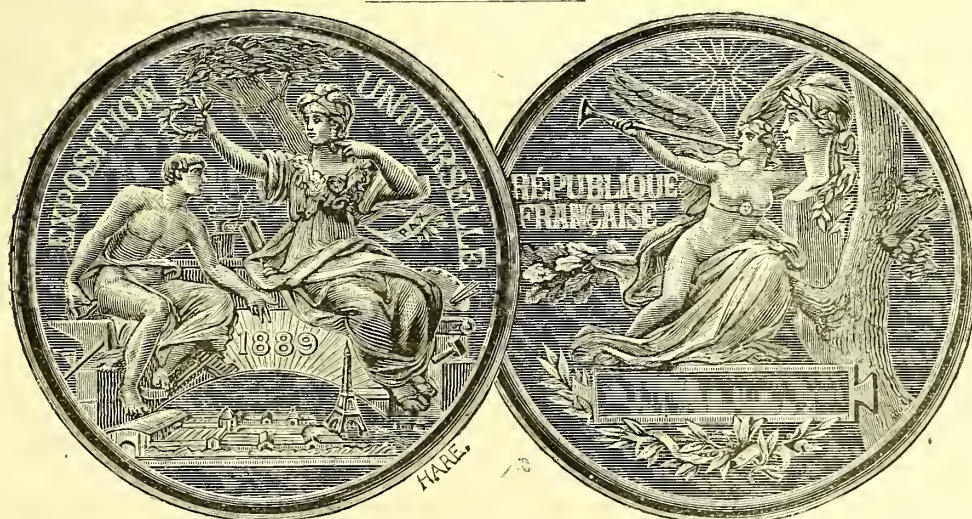
THE BEST CHRISTMAS SUGGESTION

for his adoption. Shall he send out, as a gift to his customers, a pretty calendar, a household almanac, a chromolithograph, a sachet, an elegant Christmas card, or what? He wants the suggestion, whatever it may be, to be as definite as possible: that is to say, if it is to be a card, he would like to have the design; if it is to be something perfumed, he wants to know how it is to be done. He wants the thing to look nice, but at the same time not to cost too much; or, putting this the other way about, he wants to do the business as cheaply as he can without looking mean. With this explanation, we ask subscribers, their families, or their employes to help by sending us their designs or suggestions during the current month. Such must be sent in on post-cards; and November 30 will be the latest date we can receive cards in competition. The cards must be addressed to "The Editor of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.," and correspondents are reminded that if they write anything else on the address side (as, for instance, "post-card competition") surplus postage will be asked, and the cards will be rejected. We shall give one guinea for the best design or suggestion sent in; and if we get a sufficient response we will with pleasure add another guinea for second or second and third places.

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THIS work has been written for us by Mr. E. N. Alpe, of the Solicitors' Department, Inland Revenue Office, Somerset House, who has had a wide experience in and intimate knowledge of the administration of the Acts which regulate the sale of proprietary medicines. The Handy Book is, consequently, of exceptional value to chemists and druggists, more especially in showing how medicines are made liable to stamp-duty by labelling, circulars, and the like. Reviewers have been unanimous in stating that the work is not only complete, but interesting and invaluable. It is as free as possible from legal phraseology, is readable, and is nicely got up. Price 2s. 6d., or by post 2s. 9d.

THE PARIS EXHIBITION MEDALS.



We are indebted to Messrs. Burroughs, Wellcome & Co. for the loan of the accompanying engraving showing the design of the Paris Exhibition Medals.

Metropolitan Reports.

THE next meeting of the Chemists' Assistants' Association will be held on November 21, when a paper by Mr. R. Casswell Harrison on "Oleate of Mercury" will be read.

WESTMINSTER COLLEGE PHARMACY CLUB.—The first musical meeting of this club was held on Wednesday, November 6, at the Bridge House Hotel, Mr. G. S. V. Wills, the President, in the chair. On Tuesday, November 12, a lecture on "Paper and Paper-making" was delivered by Mr. Prentice at the Lecture Hall, Westminster College.

No. 4 CHEAPSIDE.—A London daily paper says:—"The well-known premises at the eastern corner of St. Paul's Churchyard, so long occupied by Messrs. Butler & Crispe as chemists, it is expected, will shortly be taken down, the lease from the Bridge House Estates Committee having run out. The Corporation have resolved not to grant a building lease on the present line. When this comes about it is hoped it will not be long before the corresponding houses on the north-eastern end of Paternoster Row will be removed, thus opening up a vista from St. Martin's-le-Grand to St. Paul's, and relieving the congested traffic at that spot."

A MEDICAL DEFENCE UNION.—A metropolitan branch of this Union was inaugurated in London on the 6th inst., at a well-attended meeting of members of the medical profession, held at the offices of the British Medical Association, 429 Strand. Mr. Lawson Tait, of Birmingham, took the chair, and described the success which had already attended the efforts of the union in protecting medical men in cases of vexatious and unfounded prosecution, and in suppressing illegal and unqualified practice. An executive of twelve members and the following officers were appointed:—President, Dr. Bridgwater; treasurer, Dr. Bantock; secretary, Dr. Campbell Pope.

SEVERAL WHOLESALE HOUSES in the metropolis have within the past ten days had calls from Inland Revenue officials in respect to the sale of absolute alcohol, which some of the houses regarded more as a chemical than as spirit, and did not accordingly hold licences. The returns for Mr. Goschen's next budget have, therefore, been swelled to a slight extent at the expense of our wholesale friends. It will take them a long time to sell as much absolute alcohol as will meet the cost of the licence. Dealers in chemical apparatus never hesitate to sell to anyone a pint of absolute alcohol. They should take care in future, as, if they do not hold a spirits licence, they lay themselves open to a heavy penalty.

CHEMIST TO THE SKELETON DUDE.—The "greatest show on earth" opened its doors to the British public on Monday evening; but little did Barnum think how near a shave he had of not being ready. One of the features of his show is a skeleton dude, John W. Coffey by name. Although that "skeleton" teaches that death is near, he clothes his attenuated form with the foibles of the hour, and paints with dainty touch his anæmic cheeks. Since arriving in this country Mr. Coffey's stock of cosmetics has run low, and in his extremity Mr. John Feltwell, chemist, of Hammersmith Road, supplied the needful, and the grateful skeleton has acknowledged his gratitude by making Mr. Feltwell his chemist.—Barnum must be a fortune to chemists. Mr. Robert Watson, of Blyth Road, W., tells us that he has supplied the "greatest show on earth" with drugs and chemicals to the value of 60*l.* 10*s.* this week. Mr. Barnum is a hale and hearty-looking old gentleman—he gives the medicines to his "moral animals."

THE CHEMISTS' ASSISTANTS' ASSOCIATION held, on Thursday evening, the most successful conversazione of its career. About 450 guests gathered in the Portman Rooms, the President and other officers receiving them. Until dancing commenced the time was filled in by an excellent concert arranged by Mr. A. C. Stark. An exhibition of scientific apparatus was arranged in the corridors and ante-rooms, the exhibitors including a number of the leading Metropolitan firms connected with the drug trade. Fleet's band inspired the dancing, and Mr. T. C. W. Martin conducted it.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

ASHTON-UNDER-LYNE.

"SEQUAH," it appears, did not go from Oldham to London, as he was reported to have done. Perhaps it was the other "Sequah" who did so. The "old original" has been for some days in Bolton, and now in the market place here he is gathering around him the halt and the lame, sufferers from chronic disease, incurables, and those whom "doctors have failed to relieve." He is doing a roaring trade.

BIRMINGHAM.

SEQUAH passed through West Bromwich and Dudley last week, and did good business, taking as much as 100*l.* each night, and extracting many teeth.

AN APOTHECARIES' TEST CASE.—A summons under the Apothecaries Act has been issued against Mr. Arthur Brown, of Braithwaite Road, Sparkbrook, on a charge of having on various days in May last attended several persons as a medical practitioner without having the necessary qualification. The case is one to test the powers of the apothecary, and it will be heard about the middle of December before his Honour Judge Chalmers at the Birmingham County Court. Messrs. Weekes, Howlett & Co., solicitors, are to conduct the prosecution.

MIDLAND COUNTIES CHEMISTS' ASSOCIATION.—The next meeting of the association will be held on Tuesday next, at 8.30 p.m., when a paper will be read by Mr. R. A. Cripps, F.I.C., and Mr. Liverseege will demonstrate a method of ascertaining the amount of carbonic-acid gas in the air of the lecture room. The annual supper will be held on December 17; the annual ball on January 23. Reading of papers will take place on February 18 and March 18; April 15 will be devoted to a social and musical evening, and the annual meeting is to be held on May 20.

THE REPORTED ABUSE OF BIRMINGHAM HOSPITALS.—A meeting of the Birmingham Hospital Saturday Committee was held on Monday night, under the presidency of the Mayor (Councillor Clayton). His worship said they met under exceptional circumstances. They had been subjected to a perfect bombardment during the past few days with regard to the abuse of the medical charities of the town. They could not discuss the document which had been issued by many medical men in the town on the subject, but if it were approved by the whole of the medical profession it would be then desirable that the committee should take notice of it.

PROSECUTION BY THE APOTHECARIES' SOCIETY.—Summonses have been taken out in the Birmingham County Court against Charles Frederick Groom and John Marston, trading as "Dr. Hunter & Co."; Jesse Key, alias "Dr. Curtis & Co."; and William Welsh, alias "J. & W. May," by the Master and Warden of the Society of Apothecaries of the City of London. There are seven summonses, two each against Groom, Marston, and Key, and one against Welsh, and in each instance a penalty of 20*l.* is sued for, on the ground that the defendants illegally acted and practised as apothecaries by attending, advising, and supplying medicine to Detective Blizzard. The cases are on the list for December 16.

GRANTHAM.

A CHEMIST ATTEMPTS SUICIDE.—At Grantham borough police court on Monday, before the mayor and other magistrates, James Stewart, about 50 years of age, chemist and druggist, Watergate, was charged with attempting to commit suicide. Dr. Wilson said he was called that morning about a quarter before eight to Mr. Stewart's residence. The defendant had then gone out, and, on witness's advice, Mrs. Stewart sent for the police. At nine o'clock, or a little after,

witness again went to Mr. Stewart's, and saw defendant in the shop, who told him that he had taken Scheele's prussic acid, adding that he was sorry he had not succeeded in taking his own life, and that he intended to do so at some future time. Dr. Wilson regretted that he had to bring the case into court, but he did not see how it was to be helped. The defendant told him that the cause of his having attempted suicide was family worries and troubles. Dr. Wilson added that on Saturday night he found Mr. Stewart insensibly intoxicated about eight o'clock. In reply to Dr. Jeans, who was upon the magisterial bench, Dr. Wilson said he did not know what fluid it was that Mr. Stewart had taken. It emitted no odour, and was perfectly black, like tar. The Defendant: I told you it was inert. Dr. Wilson: It must have been so, not to have taken effect. Defendant remarked that he did not know it was inert, or there would have been a coroner's inquest. Sergeant Wilkins deposed to visiting the shop, and finding Mr. Stewart sitting at the desk behind the counter. When he told him he had come to arrest him defendant said he would not go, and attempted to take some black fluid; but the sergeant prevented him, and, after a struggle, succeeded in taking the prisoner to the station, where he still threatened to end his life. The chief constable asked for a remand for a period not exceeding eight days, and this was granted, the defendant remaining in custody.

LIVERPOOL.

NEW ANTISEPTIC DRESSING.—Sir Joseph Lister's new cyanide of mercury and zinc dressing has been in demand here, and chemists would do well to prepare or obtain small quantities, as no doubt there will be a run on it for a time, on account of its recommendation by so eminent a surgeon.

MEDICAL APPOINTMENT.—At a meeting of the Royal Infirmary trustees on Monday Mr. F. T. Paul was appointed to fill the vacancy caused by the resignation of Mr. Reginald Harrison, who left Liverpool to take up his residence in London on the same day. Mr. Paul, it will be remembered, was the most important witness for the defence in the late Maybrick trial.

STEALING CASTOR OIL.—At the Liverpool Police Court on November 6, Thomas Coulan (38), a bottle dealer, was brought up on remand, and charged with the theft of a bottle of castor oil, of the value of 4s., from William Moysey, chemist, 95 Brunswick Road. The prisoner had entered Mr. Moysey's shop with a prescription, and whilst Mr. Moysey was away from the counter he took the bottle of oil and decamped. After several ineffectual attempts to dispose of it he eventually sold it to Mr. Stephenson, chemist, 98 Kensington. On his apprehension by Detective Fisher the prisoner denied the charge. He was committed to the sessions.

LIVERPOOL CHEMISTS' ASSOCIATION.—At the meeting held on November 7 the president, Mr. A. H. Samuel, occupied the chair. There were twenty members present. After the formal business Mr. Ward said he had observed quite recently in THE CHEMIST AND DRUGGIST a note to the effect that it was illegal to sell methylated spirits on Sundays. He had not received any official notification from the Excise authorities, and but for reading THE CHEMIST AND DRUGGIST he might have broken the law without the least intention of so doing. He wished to know if other members had been made aware of it, and the reason of the restriction. Mr. T. F. Abraham said he had not received any notice, and thought the Excise should have communicated with all chemists on the matter; he trusted the reporters present would specially note this. Mr. Bain had had no notice, but as it was an Act of Parliament passed last session it was assumed that everyone became aware of it, just as they would with any other Act. Dr. Symes said this short Act was a very proper one. The use of duty-free spirit, even though methylated, was a boon which they would very much miss if withdrawn. He regretted that, as the result of an inquiry, it was found that there were chemists who sold methylated spirit for drinking purposes when public-houses were closed, and the sale was, therefore, prohibited between 10 P.M. on Saturdays and 8 A.M. on Mondays. Mr. Conroy then read an excellent and opportune paper on the "Adulteration of Castor Oil" (printed on another page),

which was followed by a good discussion and a unanimous vote of thanks to the author. Referring to the adulteration with "blown" cotton-seed oil, it was pointed out that, although this did not reduce the viscosity, it was a serious matter where the intention was to use it for lubricating purposes, as it was a drying oil, and was rendered worse by the blowing. The president disagreed with this view, but Mr. Conroy, in his reply to criticisms by Mr. Ward, and inquiries by others, condemned cotton-seed oil as a lubricant. In the discussion which followed Dr. Symes's paper on "Essence of Senna Pods" (published in THE CHEMIST AND DRUGGIST last week) he was asked why the small quantity of ammonia was added to the aqueous menstruum. In reply he said that he had found the liquor to have otherwise a decidedly acid reaction, and if evaporated down in that condition the cathartin present would be much injured. Samples of senna pods, brown and green, an ethereal extract from the latter, concentrated infusions from both, and fluid extracts, plain and flavoured, were shown, and examined by the meeting, Mr. T. F. Abraham remarking that the extracts were not only free from disagreeable taste, but were really pleasant. It was announced that on account of the late sittings of the law courts St. George's Hall would not be available on the day first named for the announced soiree, which would not be held, therefore, until early in January. The president said that at so late an hour it would be useless to take the discussion on "The Pharmacy Act in reference to Unregistered Assistants," and it must, therefore, be adjourned until another meeting. Mr. F. A. Brown exhibited a "pin-hole camera" of his own construction. It consisted of a small deal box about $9 \times 5 \times 4\frac{1}{2}$ inches, with hinged lid and diaphragm across the centre, the whole being blackened (a dead black) inside. A portion, about an inch square, cut from the centre of each end was replaced by a piece of tin pierced in the centre with a pin-hole, thus forming a double camera. No lens being necessary, the apparatus can be constructed in an hour or two at the cost of a few pence, care being taken to have it perfectly light tight, otherwise fogging is sure to occur. This is obviated in a great measure by covering the camera with a black cloth when in use. Mr. Brown showed some negatives of views on the Manchester ship canal, &c. These were somewhat over-exposed, but otherwise excellent as a first attempt. In moving a vote of thanks, Dr. Symes said that, although pin-hole cameras were not altogether new, few of them were acquainted with the practical results obtainable by this means. Mr. Brown's negatives were quite equal to those which he at first obtained with expensive apparatus.

MANCHESTER.

SELLING CHLORODYNE WITHOUT A STAMP.—A short time ago a bottle of chlorodyne was bought at a patent-medicine shop, and, as it was unstamped, an analysis was made of it, which showed the presence of chloroform and hydrocyanic acid in notable quantities. Thereupon the purchaser informed the local secretary of the Pharmaceutical Society of the fact, who in his turn communicated with Mr. Bremridge, and it is expected that the seller will be prosecuted.

DEGREE DAY at the Victoria University was made by the students one of the noisiest on record. Of a long statement made by the vice-chancellor (Dr. Ward) not a word could be heard, and the disorder was continued while the candidates for degrees were being presented. "Disgraceful," "scandalous," and "rowdiness" are samples of the words applied to the students' conduct by some of the Manchester newspapers, who take the young men to task in quite a grandmotherly way. One of the graduates for the degree of bachelor of medicine and surgery was Dr. John Clough Thresh, who was formerly in business as a pharmaceutical chemist at Buxton, and is now medical officer of health at Chelmsford. Within the past twelve months Dr. Thresh has become well known in Manchester through his investigation on and his reports upon the slums of the city. His trenchant *exposé* of the conditions under which the poor live in the Ancoats district has, without doubt, given a great impetus to the movement now in progress for the demolition of the insanitary dwellings in the city, and the erection in their stead of houses in which the people shall have some chance of leading healthy lives.

MANCHESTER PHARMACEUTICAL ASSOCIATION.—A meeting was held on Wednesday, November 13, at the rooms of the Chemical Club, Victoria Hotel.

There was a large attendance, and the meeting was presided over by Mr. F. Baden Bengier, one of the vice-presidents. Before commencing the ordinary business it was proposed, and unanimously resolved, to send a vote of condolence to the family of the late Mr. Harold Woolley, to whose many estimable qualities fitting reference was made. The committee appointed at the last meeting to consider the question of holding a social gathering recommended that the gathering should take the form of a smoking concert, to be held at the Grand Hotel on the night of November 26, invitations to be sent to every registered member of the trade in the district, whether members of the association or not. The committee's report and recommendation were adopted. Mr. Wilson, one of the hon. secretaries, reported the election of five new members.

Mr. W. Elborne then read a paper on "Galenical Pharmacy." Pharmacy, he said, might be divided into three branches—chemical pharmacy, galenical pharmacy, and dispensing. The practice of retail pharmacy at present embraced chiefly galenical pharmacy and dispensing. Having briefly described the objects of the first group, Mr. Elborne proceeded to say that galenical pharmacy had for its scope the preparation of all medicinal and Pharmacopoeial preparations, together with the processes involved in the same, the products being not of a definite chemical composition, but mixtures of active and inert principles. An attempt had recently been made to standardise the most potent of these products as regards the active principle they contain. Dispensing was the art of compounding medicines prescribed for the immediate use of the patient. Mr. Elborne divided the operations of galenical pharmacy into three groups, viz. (1) the mechanical disintegration and comminution of air-dry vegetable substances; (2) the disintegration and expression of fresh vegetable substances; and (3) the extraction of air-dry vegetable substances by means of solvents. Under these groups the essayist described the different methods and apparatus employed, and in the course of his remarks on group 3 he pointed out that vegetable products, being generally of a very heterogeneous composition, were only partially soluble in the various menstrua generally used in their extraction. He mentioned the principal menstrua (spirit, water, acetic acid, and ether) and their applications. Principles which were soluble in one menstruum might not be soluble in others; for instance, although gums were insoluble in alcohol, yet a certain proportion of rectified spirit might be added to an aqueous solution of gum or vegetable albumen without entirely precipitating it, and, *vice versa*, a certain proportion of water might be added to alcoholic solutions of resins and oils without rendering them turbid. Upon this account diluted alcohol (proof spirit), as yielding a more representative preparation, was an important menstruum in the extraction of many of the Pharmacopoeial vegetable substances. Tinctures prepared with rectified spirit generally assumed a milky appearance by the addition of water owing to the resinous substances being precipitated, upon which account, when prescribed in mixtures, mucilage of acacia was frequently ordered in conjunction with them for their suspension. Proof spirit tinctures, on the other hand, generally remained clear when mixed with water.

After Mr. Elborne's paper Mr. J. C. Husband submitted a brief criticism of the paper which had appeared in the *Analyst* on the subject of tinctures and their specific gravities, which was commented on in this journal last week.

NEWCASTLE-ON-TYNE.

THE PATENT MEDICINE COMMITTEE.—A meeting of the chemists and druggists of Northumberland and Durham will be held in the County Hotel, Newcastle, on Wednesday evening, November 20, at 8 o'clock, to receive the report of the committee appointed on February 13 to ascertain the mode of working of the Patent Medicine Act, and to decide upon future action. We are asked to invite the trade throughout the country to send to the secretary (Mr. J. C. Ritson, 32 Blakett Street) information regarding present prosecutions or threats of proceedings under the Medicine Stamp Act.

NEWCASTLE-ON-TYNE CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—At the meeting of this association on Wednesday evening Mr. D. H. Oxen read a very able paper criticising the "B.P. Infusions," principally dwelling upon the reasons for the different temperatures of the water used in making them and the length of time they are directed to be infused. He advocated, as a remedy for the difference in appearance which is often observed in mixtures made respectively with fresh and with concentrated infusions, either that standard strengths of fluid extracts should be used and diluted with water to required strength, or that the B.P. should officially recognise some concentrated form of infusion, for the guidance of both the medical man and the pharmacist, for as long as wholesale houses supplied concentrated infusions so long would some use them in preference to following the B.P. An animated discussion followed and took up all the time, so that one or two other items had to be held over. At the next meeting Mr. Weddell, hon. president, will deliver a paper entitled "A General View of the Sciences."

OLDHAM.

THE PHARMACY STUDENTS' ASSOCIATION held their annual smoking concert at the Swan Hotel on Tuesday. The songs, &c., were deserving of a larger attendance. Mr. C. Granville Wood occupied the chair.

RYDE.

THE RISKS OF ORGANISERS.—At the last sitting of the Ryde County Court, before his Honour Judge Leonard, Mr. Gibbs, chemist, of Union Street, was sued by a tailor named Griffiths for 2*l.* for work done in connection with the Ryde Carnival, of which the defendant was the originator. Mr. Gibbs said he did not owe the money; the work was done *con amore*, and if everybody who assisted were to dun him for the money he should be badly off indeed. He had spent 50*l.* out of his own pocket, and no other man but plaintiff had charged for taking part in the amusements. Plaintiff said he ought to be paid for making dresses and attending seven rehearsals. There was a balance of 20*l.*, and as a Mr. Witshire had been paid he contended that he should be paid also.

Mr. Gibbs: I never gave you orders for dresses to be made up. You say you introduced dances, but Sir Roger de Coverley was introduced long before you were born. (Laughter.) You have the conscience to charge me with railway expenses when you and your men had passes. You had tea and supper at my expense, and a conveyance back to the railway station. My material was used, and I sent to London to get some more braid for your dresses. Can you show any order I gave you?

The Plaintiff: They were all given verbally.

Mr. Gibbs: It was understood that you would assist gratuitously as you did last year. I have paid 2*s.* 6*d.* into court for fitting dresses, although I never ordered it. Your men did 15*l.* worth of damage to the hobby horses through their skylarking.

His Honour said the case reminded him of the solicitor who sent in a bill for calling on a client and assisting him to get drunk. (Laughter.) There was no proof of any order, and he should give judgment for the defendant.

WOLVERHAMPTON.

CHEMICAL WORKS.—The Sewerage Committee of the Town Council report that in regard to waste acids, iron, &c., the matter was more under control, and they hope eventually to perfect the improvement. Some of the large manufacturers have laid down plant for the treatment of their waste acid, and the Gospel Oak Iron Company and the Corrugated Iron Company are now using sulphuric acid, and crystallise their waste into a commercial product.

IRELAND.

MR. ARTHUR CHANCE, L.A.H., has been appointed Dublin city coroner.

THE Board of Guardians of the Bushmills Union have

appointed Mr. D. Hoey to be dispensary officer of the neighbouring district.

THE Lurgan sanitary authorities have passed a resolution calling on the Lord Lieutenant to have tuberculosis placed in the schedule of contagious diseases.

TENDERS for oils, drugs, colours, &c., are invited by the governors of the Cork District Lunatic Asylum, the appointment of a contractor to take place on November 18.

THE authorities of the Dublin Science and Art Technical Schools are petitioning the corporation for a grant of 750*l.* to develop their chemistry and photographic classes.

MEDICAL authorities assert that the epidemic of typhus and typhoid fever at present raging in Dublin has been caused by the use of oysters taken from tainted beds.

ASYNDCATE of Belfast vintners are making arrangements to float an extensive mineral and medicinal water company, the active management of which will, it is said, be under the charge of two publicans.

AN itinerant Mayo herb "doctor" advertises threepenny packages of the mullein plant, by the use of which, he states, the public need never call into requisition the services of doctor or apothecary.

THE committee of management of the Killanir (Ennis) dispensary have appointed Mr. T. R. Killeen to be dispensary officer, *vice* Dr. Dillon, who retires on superannuation allowance after twenty-three years' service.

SUICIDE BY CARBOLIC ACID.—A Newry farmer, named M'Eroy, has poisoned himself by a dose of carbolie acid. The deceased, who had been married only a year, stated that his wife was everything desirable, but that he was tired of life.

PHARMACEUTICAL CHANGES. — Mr. Roussel, L.P.S.I. Hamilton, Long & Co., Dublin, has tendered to the firm his resignation. Mr. Moore, Enniskillen, is appointed to a position in the same firm. Mr. E. Hill, M.P.S.I., has abandoned his intention of going abroad, and remains in Dublin.

A FIRE occurred last week on the premises of Messrs. Hayes & Co., chemists, 12 Grafton Street, Dublin. The fire originated in the kitchen, where an employé had been cleaning out some old benzolene jars, the oil in which became accidentally ignited. The damage done is said to be covered by insurance.

MESSRS. BEWLEY & DRAPER, manufacturing chemists, Dublin, have received from the Great Northern Railway Company a letter stating that the rate for the carriage of ink in stone jars packed in cases from Dublin to Newry is 20*s.* 10*d.*, and from Dublin to Belfast 17*s.* 6*d.* The former is 64 miles from the city, and the latter 101.

DEATHS.—On Friday, November 8, Mr. Thomas Rogers, L.A.H., died at his residence, Upper Camden Street, Dublin, to which address he had recently transferred his pharmacy from William Street. The deceased gentleman, who was 74 years old, was greatly esteemed by his colleagues and the public. Mr. John Brennan, for over thirty years registrar of the R.C.S.I., died last week at his residence, Dundrum.

SCOTLAND.

DUNDEE.

THE CURRICULUM came up for debate at the meeting of the Assistants' Association last week. Mr. W. G. Lamont was for making it compulsory, and he enforced his views in a long speech. Mr. Skinner followed on the opposite side, and other speakers contributed their opinions, the result of the vote being the defeat of Mr. Lamont's side. Next Thursday Mr. W. L. Howie is to give the association a lecture on the visit which he and his camera made to the Hardanger. This is expected to be such a good thing that ladies are invited to attend. Speed's Hall has been engaged for the occasion, and the services of Mr. Jno. W. Russell have been retained as chairman.

EDINBURGH.

THERE is a story in circulation that a certain Pawnee medicine man is not unconnected with a drug company having its headquarters in an eastern seaport of Scotland.

THE Scottish Microscopical Society has now got into working order. The inaugural address was delivered last week by the President, Sir William Turner, F.R.S. At the meeting there was a large attendance.

A MEETING of the executive of the North British branch has been called for one o'clock on Wednesday next. Members from the country will have an opportunity of hearing the inaugural scssional address by Professor Fraser in the evening, be they so minded.

GLASGOW.

CHEMISTS' ASSISTANTS' ASSOCIATION.—At the meeting on Wednesday evening, a paper with the quaint title "Pillology" was read by Mr. Laing, who said that the model pill should be soluble, symetrical, and stable. Most of the Pharmacopœia pills were satisfactory, but pil. rufi and pil. aloes et ferri are best when massed with confection of hips. Most of the official excipients are also excellent, except, perhaps, glycerine, which is too hygroscopic, and goes best with tragacanth. Mr. Laing proceeded to lay down the following rules in regard to excipients:—(1) One part of most extracts equals two parts of powder; (2) three parts of hip confection for four of powder; (3) proof spirit is best for aloes, and (4) tragacanth for quinine. He had found liquorice powder to be best for carbolie acid pills, and for essential oils a mixture of soap and magnesia. He did not think it possible to lay down hard-and-fast rules in regard to extemporaneous pills—practice was the best guide, and glycerine of tragacanth could be relied upon generally. After commenting upon the great importance of varnishing, the author took up that perennial subject in pillology—Blaud's pills. He preferred Martindale's formula to any other, but he had the best results with a form of his own, which was:—

Ferri sulph.	..	..	..	..	..	3ij.
Potas. carb.	..	..	..	..	..	gr. 72
Glycer. trag.	..	..	..	..	..	q.s.

Mass.

Turning to factory made pills, the author said that they were elegant, but he thought retail pharmacists could make equally artistic spheres. An interesting discussion followed, in the course of which the fact was elicited that the B.P.C. formula for Blaud's pills is workable, but the pills are not durable. The addition of a little soap to a pill-mass ensures good silvering, and liquorice prevents the pitting of pil. coloc. co. Before the discussion ended some speakers had a fling at factory-made pills, saying that they were often found in the intestines in post-mortems. Meanwhile, a fling of another kind was going on in the room next door, the Clan Grant having gathered there in festive meeting, with bagpipes and all the other manifestations of Celtic joy. It was agreed (by the Chemists' Assistants) to apply to the senior association for the use of the library, &c.

CORK-MAKING.—The best cork bark comes from Catalonia and some parts of Portugal. The Andalusian and African cork is, generally speaking, inferior in quality. Portugal alone produces probably one-half or two-thirds of the cork of the world. In Europe, the manufacture of corks is carried on very extensively in Catalonia, Portugal, France, Germany, Russia, and England. In most of these places the manufactories are numerous and small. In some of the towns of Catalonia this business is followed almost exclusively, and nearly every private house in the town is a cork factory. Father, mother, and children, from eight years of age upwards, all follow the same trade, and as long as they can earn enough money to buy food and clothing of the scantiest sort they are satisfied. In the United States the manufacture of corks is carried on almost exclusively by machinery. The bark, after sorting, is steamed for a few minutes to prepare it for cutting. It is then cut off by circular knives into strips. These strips are passed over to the "blocker," who operates a rapidly revolving, keen-edged, hollow punch with a stationary rod in the inside. The strip is held on the rest, and the punch is then pushed up against it, removing a cylindrical cork, which is ejected from the punch by the stationary rod when the punch is pulled back again to its position at starting. This machine is operated quite rapidly, and a man readily cuts twenty thousand or thirty thousand per day.—*Pharmaceutical Era.*

Pharmaceutical Society of Great Britain.

AN EVENING MEETING

was held at Bloomsbury Square on Wednesday night. Owing to the unattractive programme, and partly owing, no doubt, to the foggy night, the attendance was small. The tone of the meeting was decidedly dull until the curator began to speak of his new specimens. The first paper was on

MUSCENDA COFFEE.

Professor Dunstan was the contributor, and the communication ranked as one from the research laboratory. This so-called "coffee" has figured largely in French literature recently. The seeds resemble coffee berries slightly in appearance, are the product of a plant which grows in Réunion, and those who are responsible for telling the French that it could be used in place of coffee said that it contained caffeine to the extent of 0.3 to 0.5 per cent. The Kew authorities took up the matter, and requested the author to examine the seeds chemically. Previous to this, these authorities determined that the seeds were not derived from a species of *Muscenda*, which is a rubiaceous plant, but from *Gertnera vaginata*, which belongs to the *Loganiaceæ*. Mr. St. John, a Réunion gentleman, has made inquiries on the spot, and reports that the plant is not abundant, yields but few seeds, and these would be dearer than coffee. Mr. Dunstan's analysis shows that the seeds are totally destitute of any alkaloid whatever, but contain some fat, resembling nux vomica fat, and a little sugar. A full account of the "coffee" will appear in the December *Kew Bulletin*.

There was very little to say about this communication. Mr. Holmes showed botanical specimens to demonstrate that the plant from which the seeds are derived does not belong to the *Rubiaceæ*, but to the *Loganiaceæ*. Mr. Greenish and Mr. Christy also spoke, and the chairman (Mr. Carteighe) gave the meeting the benefit of his views on coffee.

STERCULIA GUM

was the next subject. Mr. J. H. Maiden, curator of the Sydney Technological Museum, had sent a long communication about it, and the Chairman said that he would only ask Mr. Holmes to read an abstract of it. It would be too wearisome to listen to the whole of it, although the paper would be a valuable one when published. So Mr. Holmes did this. Indian *sterculia* gums were first spoken of, the chief of them being that of *Sterculia urens* and the gum of *Cochlospermum Gossypium*, both of which resemble each other, and are peculiar in possessing a strong odour of acetic acid. *S. urens* gum swells up in water, and on allowing to stand a thick magma sinks to the bottom. It is not adhesive. African *sterculias* were next referred to, the gum of *S. tragacantha* being specially mentioned as the most valuable, since it is adhesive, and can be made more so by treatment with alkalis [Mr. Holmes thinks this gum is not derived from a *sterculia*.] The Australian *sterculia* gum is derived from *S. rupestris*. It is a whitish, horny gum, with dull uneven fracture. It exudes from the tree spontaneously. In water it swells up and forms a granular jelly. It differs from *tragacanth* in being insoluble in weak alkali, and in giving no yellow colour with strong alkali. It consists mainly of pararabin, and cannot take the place of *tragacanth*, but Mr. Maiden finds that by treatment with alkali the pararabin is changed to arabin, so that it may come in useful as a gum arabic substitute.

During the discussion there was some speculation as to the origin of the acetic acid odour referred to. Mr. Gerrard thought it might be due to transformation of starch or sugar by a ferment, and no more likely explanation than this was advanced.

THE EXHIBITS.

There was an interesting collection of recent additions to the museum on show. Mr. Holmes was called upon to describe them, but he gave place to Mr. Cathcart Brown, of Kew, as an authority on a peculiar genus of cactus-like plants (*Trichocolon*), natives of South Africa, one of which yields a drug known to the natives as *guaap*. The specimen

on the table was sent by Hearon, Squire & Francis, with the statement that it was used by the natives as a thirst-quencher, and was reported to be a pile remedy. Quantities of it had gone to the United States to make a patent medicine. Mr. Brown said that the drug was the root of the plant. He only knew of two species of the genus; this was the third, and he had not given it a name yet. The Hottentots ate the plant, sheep and goats were also fond of it, but the Kaffirs would not eat it. There were other specimens of South African plants on view, also a collection of herbarium specimens of South African native medicines. Professor van Eeden had sent some genuine Java cubebs and oil distilled from them. Mr. Holmes called attention to these and other specimens. Perhaps the most interesting of all the specimens was a piece of the trunk of a turpentine tree (*Pinus Australis*) with part of the bark removed, as it is done by the collectors of the turpentine. When the wood is laid bare grooves are made in it diagonally in herring-bone style, so that they meet in the centre and go down until they reach the "box"—a deep incision made in the trunk to receive the turpentine. What solidifies in the grooves is the gum thus of commerce. A piece of the Canada balsam tree was exhibited to show that that turpentine collects in vesicles or warts on the bark, and is taken from them on puncturing. The members showed considerable interest in Tebbutt's upward percolator which was on view. Mr. Christy exhibited a Bunsen burner with a little loop of platinum wire over the top, the effect of which is to enable the flame to be turned down very low.

Before the meeting adjourned the President mentioned that on December 11 a number of communications from the Research Laboratory would be read.

Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on Wednesday, November 6, at 11 Harecourt Street, Dublin. Present: the President (Mr. Charles Evans) in the chair, and Messrs. Doran, Beggs, McCormack, W. F. Wells, jun., Whitla, J. Montgomery, McNaught, Baxter, and Professor Tiehborne.

A NEW COUNCILLOR.

A letter was received from Mr. Richard W. Pring, of Belfast, expressing his regret that he could not withdraw his resignation as a member of the Council. The President said they all regretted Mr. Pring's decision, and on the motion of Mr. Beggs, seconded by Mr. Wells, the standing orders were suspended in order that the election of members might be taken.

Dr. Rodolph A. C. Burnes, 83 Queen's Street, Dublin, and Mr. Hugh Montgomery, of the Meath Medical Hall, Kells, were then elected members of the Society.

Mr. WELLS moved that Dr. Burnes be elected a member of the Council in the room of Mr. Pring. Dr. Burnes kept an open pharmacy and intended to carry on the business, so that he was practically one of themselves. He had lately taken very high degrees in medicine in Trinity College, and would be a very useful member of the Council.

Mr. BEGGS seconded the motion, which was carried unanimously.

ELECTION OF OFFICERS.

With some complimentary speeches Mr. Charles Evans was, on the motion of Mr. Wells, seconded by Mr. Whitla, elected President for the ensuing year.

THE PRESIDENT: Allow me to thank you for this expression of your confidence. I feel how inadequate I am to fill the responsible position to which you have called me, but I rely on your assistance in everything that may come before us.

Professor TIEHBORNE claimed the privilege of proposing Mr. Wells as Vice-President. He had been a most efficient member of the Society—(hear, hear)—none more so. He had shown an energy which could only come from a real interest in the work of the Society, and he seemed to be in accord with the general feeling of the Society. He (the speaker) had always expressed the opinion that the office of Vice-President should be filled by one of the country members,

and in future he would like to see the north and south alternately represented; but at present the old members of the Council residing in the north had declined this honour.

Mr. BEGGS seconded the proposition, which was carried by acclamation.

The President expressed his gratification at the choice which had been made, and Mr. Wells thanked the Council for the honour they had paid him. Mr. Hodgson was re-elected treasurer, and, on the motion of Mr. Beggs, seconded by Mr. Baxter, the outgoing auditors, Messrs. Simpson and Hayes, were re-elected.

COMMITTEES.

The VICE-PRESIDENT moved that the following gentlemen constitute the Law Committee for the ensuing year:—Messrs. Beggs, Grindley, McCormack, Merrin, Professor Tichborne, McNaught, and J. Montgomery.

Mr. WHITLA seconded the motion, which was unanimously agreed to.

Mr. WHITLA moved that Messrs. Beggs, Hayes, McCormack, Simpson, and McNaught be the committee for the examination of certificates for the ensuing year.

Seconded by Mr. Baxter and agreed to.

EXAMINER.

Mr. BAXTER moved that Dr. H. C. Tweedy, F.R.C.S., be reappointed examiner for the Preliminary examinations; Mr. Harry Carter Draper, F.C.S., examiner in pharmaceutical and general chemistry; and Dr. William Whitla, in materia medica and botany. It was most important that the Society should have such examiners as would maintain its educational status and keep its students abreast of the times, and the work already done by the gentlemen named had been thoroughly approved of.

Mr. WHITLA seconded the motion, which passed unanimously.

The VICE-PRESIDENT mentioned that the term of office of Dr. Evans as one of the examiners would not expire until next January, therefore it was not necessary to re-elect him now.

THE CHEMISTRY CURRICULUM.

A letter was read from Mr. Patrick Kelly asking that the 100 hours of laboratory work (for chemistry), at present required to be certified in the case of a candidate for the licence, should be reduced to fifty or sixty. The writer stated that such a lengthened course was not required by any other licensing body in the United Kingdom. There was only one school in Dublin at which students could get it; but attendance at it was required during the daytime, and therefore students who had to be at business during the day could not avail themselves of it. If the amalgamated schools should give night lectures it would be at the cost of from 8 to 10 guineas for the 100 hours, and would involve the necessity for candidates from the country stopping in Dublin for six months instead of three, which meant an excessive expense to them.

The PRESIDENT: I would like to hear an expression of opinion from members on this matter.

Mr. MCCORMACK said he did not know how the rule regarding the 100 hours could possibly be changed. It had been already discussed and had received the sanction of the Privy Council, and he did not see how they could go over the same ground again.

Mr. BEGGS: The 100 hours' rule was only passed a short time ago, and I do not think it has been sufficiently tried yet.

Mr. BAXTER: I have considerable sympathy with Mr. Kelly. I think 100 hours an extreme amount of laboratory work to require. But we must take into account that the examination papers are much more difficult now than they used to be.

Professor TICHBORNE said the rule pressed hardly on the country candidates, on whom it imposed great expense and trouble. It did not so much affect those who were resident in Dublin. Of course it meant higher fees to the teachers.

The VICE-PRESIDENT said he thought it would be premature to change this rule so soon. It only came into force last July; and if they attempted to do away with it now, the Privy Council would think that they did not know their own minds. The subject was very well threshed out at the discussions which took place at the Council, and the opinion of

the members then seemed to be that candidates were not well enough prepared in chemistry. Things were rather upset at present. The night schools had been given up; but if an enterprising professor were to start a night school, he thought he would get plenty of students. Of course, more would have to be paid; but it would be a pity for the sake of a few pounds not to have their candidates well prepared. He thought it would be better to let this matter rest for a little.

Mr. DORAN said that if a man showed himself capable of passing at an examination, even though he had only had fifty or twenty-five hours' study, he did not see why he should not be allowed to pass.

The VICE-PRESIDENT: If you did that, it would amount to going back to the old times when we had no curriculum at all.

Mr. DORAN: I do not see why a man should not be allowed to pass either the preliminary or the final examination if he shows that he is fit to do so. A man might learn chemistry by private study without attending any school.

Mr. MCNAUGHT remarked that there were a considerable number of small towns in Ireland with populations of not more than from 4,000 to 5,000, in which there were good science classes.

The PRESIDENT: Mr. McCormack has a motion on the paper that the Society should establish a night school of chemistry. Would you appoint a special committee to look into both matters? We know that our candidates are now not in a position to obtain the 100 hours' study, no matter how desirous they may be to get it. It is a great hardship on candidates to be obliged to pay double fees.

Mr. MCCORMACK was permitted to move his resolution, which appeared further down in the agenda-paper, and which was—

That a night school of chemistry be established in connection with the Pharmaceutical Society.

About a fortnight ago he heard that the Ledwick and the Carmichael Schools were about to discontinue their night lectures. If the Society's candidates had no places where they could take out their lectures, they would drop off. If the Council could not see their way to establish a school of chemistry, he was afraid they would have to give up the rule requiring the 100 hours' work. It might be referred to a committee to inquire as to the cost of establishing a school.

The VICE-PRESIDENT said he would second the proposal for a reference of the subject to a committee.

Professor TICHBORNE: The committee should meet early and report to the next meeting of the Council, so as, if possible, to have the matter arranged before the winter session begins.

On the motion of Mr. McCormack, seconded by Mr. Whitla, it was resolved that Mr. Kelly's letter and Mr. McCormack's notice of motion be referred to the following committee:—Dr. Tichborne, and Messrs. Grindley, Beggs, Hayes, Hodgson, Merrin, and Simpson.

CORRESPONDENCE.

The following letter, dated September 9, from Mr. Greenwood Pim, Secretary to the College of Physicians and College of Surgeons Conjoint Examinations was read:—

DEAR SIR,—Replying to your favour of the 6th instant, I was under the impression that the service alluded to in your first letter was the three months with a licentiate apothecary, &c., formerly accepted. That mentioned on page 7 of the New Regulations is, as you will observe, service for three years as apprentice, or one year as paid assistant, which is very different from the three months' instruction formerly. This accounts for my not mentioning the matter in mine of the 12th August.

Yours, &c.,

GREENWOOD PIM.

The VICE-PRESIDENT: By this letter we find that a year's service as paid assistant to a pharmaceutical chemist will be taken.

The PRESIDENT: Or three years' apprenticeship.

A letter was received from Mr. Robert Wall, inclosing a certificate of practical pharmacy in lieu of indentures, which he desired should be returned to him.

The Registrar was directed to write to Mr. Wall, stating that the certificate he had sent was not sufficiently specific.

The PRESIDENT said the next item on the agenda-paper

was a letter from an anonymous correspondent, complaining of breaches of the Poisons and Pharmacy Acts. He had placed this on the paper in order to take the opinion of the Council as to whether it should be read or not. On the motion of Professor Tichborne, it was resolved that the letter be marked "Not read."

Mr. James J. Watterson, of Belfast, wrote that, owing to the recent change in the Society, he did not feel inclined to go in again for their examination, as no protection was afforded to chemists; and asking that half the fee which he had paid should be refunded.

Mr. BEGGS: There is no precedent for the return of fees. We will give him a second examination free.

The Registrar was directed to inform Mr. Watterson that no exception could be made in his case to the regulations.

Dr. Montgomery wrote that it was not his intention to renew his subscription to the Society. Mr. A. J. Paterson also wrote resigning membership of the Society.

A prospectus from Mr. N. J. Hanbury of an illustrated monograph of the British Hieracia was submitted to the Council.

Donations were announced from the Smithsonian Institution of Part I. of their Annual Report for 1886; from the Alumni Association, Philadelphia College of Pharmacy, of their Twenty-fifth Annual Report; and from the Mason Science College of their Calendar for 1888-90. Thanks were voted to the donors.

COMMITTEES' REPORTS.

A report from the Certificates' Committee was adopted.

A report from the Law Committee was postponed until the next meeting of the Council.

The report of the Examiners upon the October Preliminary and Licence Examinations was laid on the table.

The PRESIDENT: You will see that 50 per cent. of the candidates at the Preliminary examination failed.

The VICE-PRESIDENT moved that the following licentiates be admitted members of the Society:—Messrs. William Hanna, Main Street, Bangor; Charles Marshall, Hamilton Street, Belfast; and John Anderson, 47 Market Square, Lisburn.

The PRESIDENT seconded the motion.

Mr. WHITLA moved that Mr. Edward P. Murray, licentiate, of Clones, be re-elected a member of the Society. Mr. Murray was a member, but ceased to subscribe because he did not approve of the action of the Council some time ago. He desired to rejoin because he had every confidence in the present Council. (Applause.)

The VICE-PRESIDENT seconded the motion.

On the motion of Mr. Baxter, seconded by Mr. Doran, Mr. W. J. H. Madden, licentiate, of Melrose Terrace, Belfast, was proposed as a member of the Society.

On the motion of Mr. McCormack, seconded by Mr. Wells, Mr. T. W. Robinson, of 112 Upper George's Street, Kingstown, was proposed as a member of the Society.

The Council then adjourned.

General and Provincial News.

THE CHEMISTS' BALL.—In our last week's note regarding the next ball the date given was Jan. 12th instead of the 15th. The 12th happens to be a Sunday.

DRUGS AND ELECTIONS.—At the recent municipal elections at Folkestone, Francis Brett, a clothier, threw a bottle of acid at one of the candidates, and hit another man, doing him much injury. For this offence he was fined 5*l.* and costs. At the same meeting some young men threw asafetida about the floor, causing many people to leave.

The British Association is to go to Cardiff in 1891. Edinburgh was anxious to have it that year, and for that reason the pharmacists in the northern metropolis were looking forward to a visit of the British Pharmaceutical Conference two years hence.

THE PHARMACIST BEATS THE CABINET MINISTER.—The Bulgarian Sobranje (Chamber of Deputies), at the inaugural meeting of the new Parliamentary session, held at Sofia on November 3, elected as its President Apotheker Slawkoff, of Tirnovo, the governmental candidate, who

received 161 votes, against 74 cast for the late Minister of Justice, M. Stoiloff.

The other day an explosion occurred at Dr. Schuchardt's chemical factory at Görlitz, Germany, during the refilling of some acid bottles, setting fire to the room. The doctor's son immediately poured water upon the fire, instead of quenching it with sand, with the result that he was overcome by the vapours generated, and died within a few hours from blood-poisoning.

A FRIGHTENED BULLOCK took shelter from a dog the other day in the shop of Mr. R. J. Joint, chemist, Chulmleigh. Mr. Joint caught it by the horns, and was getting it out of his establishment, when the dog began to bite the animal's heels, compelling the bovine visitor to jump on the counter, where its mad dance resulted in damages to the extent of 20*l.*

DEMOCRATIC SURGEONS.—At the annual meeting of the Royal College of Surgeons held on November 7, the much-debated question of the right of members to be represented on the Council was raised by Dr. Elliston, who moved a resolution in support of the views of the reformers. The resolution was carried by a large majority, and it was stated that a Bill to give it effect will be introduced into Parliament next session.

MELDRUM, GASKELL & CO. (LIMITED).—This company has been registered with a capital of 5,000*l.* in 10*l.* shares. The business taken over is that of Meldrum, Gaskell & Co., Victoria Works, Palmerston Street, Ancoats, Manchester, soap makers and dealers, manufacturing and analytical chemists, size-makers, &c. J. Meldrum and J. Gaskell are appointed the first directors, and two are to be nominated by the subscribers to the memorandum of association.

OPIUM AND SAFFRON CULTIVATION IN RUSSIA.—It is stated that a Persian named Mahomed Alieff has commenced the cultivation of opium and Persian saffron (safflower we presume) in the neighbourhood of Derbent, in Asiatic Russia. The "saffron bulbs" he brought from Baku, where the plant has been cultivated for a long time. The first season's crop of a field of 1½ acre yielded 22 lbs. of pressed saffron, which he sold at 20 roubles per lb., while from his opium plantation he obtained a yield of 12 lbs., for which he obtained 60 roubles in the market.

THE LINCOLNSHIRE HORSE-POISONING PREVENTION ASSOCIATION held its annual general meeting at Lincoln on November 8, Mr. F. C. Marshall presiding. The Right Hon. H. Chaplin, M.P., was re-elected chairman. The secretary (Mr. Upton) read the annual report, from which it appeared that in only two cases had prosecutions been instituted during the year, and convictions were secured in both. The present number of members was 221, showing a decrease of eight. The expenditure of the year had been rather heavy, but the balance in favour of the association had been increased by 7*l.* odd, and now stands at 176*l.* odd.

THE CHEMISTS' AERATED AND MINERAL WATERS ASSOCIATION (LIMITED) report a very considerable increase in the sales at each of the factories, and a corresponding gain in the net profit for the year. The number of members now exceeds 2,000. Of the net profit of 2,867*l.* 3*s.* 7*d.* they propose to pay a dividend of 7½ per cent. free of income-tax, absorbing 1,268*l.* 15*s.*; to write off plant, 610*l.*; premises, 150*l.*; vans, &c., 145*l.* 8*s.* 7*d.*; and to finally write off the preliminary expenses account, 693*l.* The annual meeting of shareholders is called for Monday, November 18, at 3 P.M., at Anderton's Hotel, 162 Fleet Street.

We mentioned some months ago that a number of patent medicines, including a large stock of Warner's safe cure, had been confiscated by the police in the Vienna pharmacies. Mr. Warner appealed against this seizure, but his claim has been rejected by the Law Courts on the ground that, according to Austrian law, pharmacists are allowed to sell only such made-up pharmaceutical preparations of which the formula is kept at the same time for inspection by medical practitioners. Warner's formula, as supplied to the Vienna vendors, of his preparations, contains such ingredients as herba lycopi virgin., ext. gaulther., &c., which are either quite unknown in Austria, or the therapeutical value of which is not generally acknowledged by the faculty, and which consequently do not admit of the requisite medical control and examination.

CASTOR-OIL ADULTERATION.*

BY MICHAEL CONROY, F.C.S.

IT would be difficult to name a business where the art of adulteration is practised to the extent that it is in the oil trade. Castor oil, however, is one of the oils that is less subject to adulteration than perhaps any other that is imported; but there has recently been received in Liverpool from Calcutta more than one shipment, numbering several hundred cases, bearing the usual marks, which has been found on examination to be adulterated with cocoa-nut oil to the extent of from 20 to 30 per cent.

Castor oil, owing to scarcity of seed, has recently advanced over 50 per cent. in value, and it is, no doubt, due to this cause that we find this somewhat novel sophistication.

The choice of a substance like cocoa-nut oil seems very absurd, but we should remember that in our Indian climate this oil would be quite liquid, and the fact that it would become solid on its arrival here would probably not present itself to the native mind. It is this characteristic that first drew attention to the matter, for it was found that this particular lot of castor oil began to become semi-solid on standing a few days here after landing. As it is possible that some of this adulterated oil may find its way into pharmacy, I have thought it worth while to bring these facts before you, and to give the result of my experience as to the best means of detecting and estimating the adulterant.

The test given in the British Pharmacopœia is that it is "entirely soluble in one volume of absolute alcohol and in two volumes of rectified spirit." Now this test is quite useless for the detection of cocoa-nut oil or any other possible adulterant, because oils that are insoluble in both absolute alcohol and rectified spirit are soluble in a mixture of either with castor oil, and I have here samples of castor oil containing 10 and 20 per cent. of cocoa-nut oil which are freely soluble in these solvents as is castor oil itself. On the other hand, I have never yet met with a sample of castor oil one volume of which would dissolve in two volumes of rectified spirit of the Pharmacopœia strength, viz., sp. gr. '838 at 60° Fahr. With the thermometer at 70° to 80° Fahr. solution does take place, but not at 60° Fahr. With spirit of sp. gr. '830, one volume of castor oil dissolves perfectly in two volumes at 60° Fahr., so that it will be seen that by either increasing the temperature or by using spirit a few degrees stronger solution does take place; but even with this alteration the test will only serve, as has been already shown, to detect adulterants outside of certain limits.

Castor oil is also soluble in glacial acetic acid, while all other fixed oils, with the exception of croton oil, are insoluble. This test is given in some works, but I find the same objection to it that I have previously mentioned in connection with the Pharmacopœia test; for, notwithstanding the fact that the other oils *per se* are insoluble, they are rendered soluble when mixed with castor oil within certain limits.

The chief distinguishing features of castor oil are undoubtedly its high density and its insolubility in petroleum ether (henzole) when compared with other fixed oils. We find it stated in text-books that castor oil is insoluble in petroleum ether, of which, however, it has the peculiarity of dissolving its own volume. This statement is not correct, for I shall show you that castor oil is to a certain extent soluble, also that under a certain temperature castor oil will not dissolve its own volume of petroleum ether.

This latter feature I find affords trustworthy proof of the presence or absence of any other fixed oil.

The following experiment was made with samples of East Indian, French, and Italian castor oil, each giving practically the same result. The petroleum ether used had a sp. gr. of '7033 at 60° Fahr.

Twenty c.c. each of castor oil and petroleum ether were mixed by brisk agitation in a tall graduated tube and maintained at a temperature of 60° Fahr.

The mixture never became clear, and, on standing for about

an hour, a layer of petroleum ether collected on the surface, measuring 3 c.c. This, as we shall shortly see, has a very important bearing, and it should be borne in mind that the same experiment was tried on many samples from various sources, and that never in any instance at a temperature of 60° Fahr. did a clear mixture result, and, in all cases, a separation of petroleum ether took place on standing amounting to practically the same volume.

If, on the other hand, the mixture be made at a temperature of 70° Fahr. the whole of the ether is dissolved, or, if the mixture made at 60° Fahr. be shaken and raised to 70° Fahr., perfect solution takes place, but on cooling again to 60° Fahr. the same amount of separation occurs.

Thus far we have seen the behaviour of petroleum ether with genuine castor oil, and we shall now see how it behaves with adulterated samples. For this purpose samples were made, each containing 5 per cent. of one fixed oil, such as cottonseed, cocoa-nut, &c. These samples, in all cases, made a perfectly clear solution with an equal volume of petroleum ether at 60° Fahr., and in no instance did any separation take place on standing.

We thus see that so small an amount as 5 per cent. of a fixed oil other than castor oil, when present, is sufficient to cause the whole of the petroleum ether to combine and form a perfectly clear solution, and I think that it has clearly been shown that the test is a reliable and a safe one.

So far, I have only made use of this as a qualitative test, but I have hopes that by adopting certain precautions it can be made a quantitative one, for I find that if two volumes of petroleum ether be used instead of one, and thoroughly mixed by agitation at a temperature of 60° Fahr., separation takes place in the adulterated as well as in the pure samples, and that the volume of the ethereal layer increases with the amount of adulterant present, with a corresponding diminution in the lower castor-oil layer.

To demonstrate this, I have here three tall graduated tubes of 60 c.c. capacity. No. 1 contains 20 c.c. of pure castor oil and 40 c.c. of petroleum ether. No. 2, 20 c.c. of castor oil, containing 10 per cent. of cocoa-nut oil and 40 c.c. of petroleum ether. No. 3, 20 c.c. of castor oil, containing 20 per cent. of cocoa-nut oil and 40 c.c. of petroleum ether.

These, on being well mixed by agitation and allowed to rest, separate into portions varying with the amount of cocoa-nut oil present in the sample, as shown in the following table:—

	Bottom or castor-oil layer	Petroleum-ether layer	Total measurement
No. 1	36 c.c.	24 c.c.	60 c.c.
No. 2	33½ "	26½ "	60 "
No. 3	30½ "	29½ "	60 "

I have already referred to the statement found in text-books to the effect that castor oil is insoluble in petroleum ether, and promised to demonstrate that such was not the case. No. 1 sample proves my contention, for I have already shown that in mixing 20 c.c. each of castor oil and petroleum ether, 37 c.c. of the castor oil mixture separates, whilst in this last experiment (No. 1 in table) only 36 c.c. of the castor-oil mixture is left, showing that the extra 20 c.c. of petroleum ether has taken up some of the castor oil; and the decrease in Nos. 2 and 3 is undoubtedly due to the fact that the cocoa-nut oil is dissolved out by the petroleum ether. This can be demonstrated by drawing off the upper layer and driving off the petroleum ether, when the cocoa-nut oil, containing some castor oil, will be left.

It must be remembered in reading this table that the lower stratum is a mixture of castor oil and petroleum ether in nearly equal portions, and that the diminution in bulk in Nos. 2 and 3 is due not only to the abstraction of the cocoa-nut oil by the petroleum ether, but also to the fact that there is that much less castor oil in the sample to combine with the ether, so that the lower portion will show a decrease in volume from these two causes, and the upper one a corresponding increase.

I have not tried this experiment with a sample containing more than 20 per cent. of cocoa-nut oil, because with this percentage of adulteration the separation of the two layers is very slow. This is due to the peculiar solvent action

* Read at a meeting of the Liverpool Chemists' Association on November 7.

already referred to in connection with the alcohol test, where a solvent has the power, in combination with a substance which it freely dissolves, to take up a third substance which, without the aid of the second, it could not dissolve. Therefore a sample containing much more than 20 per cent. of cocoa-nut oil or other adulterant would, in conjunction with the petroleum ether, carry the castor oil into solution.

As a quantitative test, my experience of this method is only of a few days' standing, and I do not wish to speak too dogmatically upon it, but I do think that if carefully carried out at a temperature of 60° Fahr. it is capable of yielding very trustworthy results.

I have alluded to the high density of castor oil as being one of its distinctive characteristics, and in this instance, where the adulterant is cocoa-nut oil, it is possible to arrive at the percentage of adulterant present by the specific-gravity process quite as accurately as by either the saponification equivalent or the iodine-absorption test, and with far greater facility. The specific gravity of castor oil at a temperature of 60° Fahr. is .964. I have never found any higher, and the lowest that I have met with was a sample of French oil, which gave .9625 at the same temperature. There is a greater range than this given in text-books, but I much doubt their accuracy, and in my experience .963 to .964 is the correct density for genuine oil. When castor oil is adulterated with 10 per cent. and over of cocoa-nut oil, the latter separates when the temperature falls to 60° Fahr., and it becomes necessary in such cases to take the density at a higher temperature. I have, therefore, taken a sample of castor oil possessing a density of .964 at 60° Fahr., and found its density to be .949 at 100° Fahr. A sample of cocoa-nut oil at the same temperature (100 Fahr.) I found to be .912. Both densities were taken by means of an accurate 1,000-grain bottle. From this it will be seen that the difference between the two densities is sufficient to enable one to arrive at a very accurate estimation, by a very simple calculation, of the amount of cocoa-nut oil present.

In the first place, it is of course necessary to ascertain the presence of cocoa-nut oil, and this can be done by heating the sample under examination in a small porcelain dish, when the distinctive odour of cocoa-nut oil can readily be ascertained. By this plan the presence of even 1 per cent. can be detected, and 5 per cent. is quite distinctive to anyone possessing an ordinary sense of smell.

I have heard within the last few days that some castor oil has reached Glasgow which, on examination, was found to be adulterated with cottonseed oil. The adulterant is probably what is known as "blown" cottonseed oil, which is made by blowing warm air through the oil. Great heat is thereby developed, and the oil increases in density and viscosity.

The presence of this oil can be detected by my modification of the nitrate-of-silver test, which is applied as follows:—

1. Make a test-solution containing 5 parts of silver nitrate and 1 part of nitric acid (sp. gr. 1.42) in 100 parts of rectified spirit (sp. gr. .838).

2. Pour about 100 grains of the oil under examination into a dry test-tube, about $\frac{1}{2}$ inch in diameter, add to it 10 grain-measures of the above test-solution, and place the tube in boiling water for five minutes.

Castor oil assumes a pale yellow colour, but the presence of cottonseed oil causes it to become deep red.

In conclusion, I would just add that the quantitative petroleum-ether test is capable of much further development, but, being tied for time, I have not had an opportunity of fully working it out.

EUCALYPTUS KINOS.—Mr. J. H. Maiden has recently communicated a paper to the Linnean Society of New South Wales on the examination of kinos as an aid in the diagnosis of eucalypts. He shows that eucalyptus kinos may readily be grouped into three great classes, according to their behaviour with water and with spirit:—(1) The ruby group, which consists of ruby-coloured kinos, which are soluble either in cold water or in cold spirit; (2) the gummy group, consisting of kinos which are soluble in cold water, but very imperfectly in spirit, owing to the gum they contain; (3) the turbid group, consisting of kinos which are soluble in hot water or in hot alcohol, but of which the solutions become turbid on cooling, owing to the presence of catechin.

THE UNQUALIFIED SELLER OF POISONS.—MEETING OF CHEMISTS AT SHEFFIELD.

A MEETING convened by the members of the Sheffield Pharmaceutical and Chemical Society was held in its lecture-hall on Wednesday, November 13, for the purpose of discussing the question—Who is the seller of a poison under the Pharmacy Act? Mr. A. R. Fox, President of the Society, occupied the chair; and amongst a numerous attendance were Mr. Newsholme, Mr. Learoyd, Mr. Bradwell, Mr. Preston, Mr. Archer, Mr. Ellinor, Mr. R. Watts, and other leading Sheffield chemists.

The PRESIDENT, in opening the discussion, stated the circumstances under which the question had arisen, and he read a telegram announcing that the Pharmaceutical Society of Great Britain had been successful in their interpretation of the Act, and that the seller of poisons meant "the actual seller."

The SECRETARY (Mr. J. Morrison) then read a couple of letters. One of these was from Mr. A. H. Allen, the borough analyst, in which he said: "I hold that the intention of the law is that every sale of deadly poison should be properly recorded, so that in the event of necessity the purchaser can be discovered. I think the Act should be very strictly complied with as regards requiring the name and address of the purchaser, the alleged purpose for which the poison is wanted, and the introduction of a stranger should be rigidly insisted on, unless he practically introduces himself by means of his card. On the other hand, I cannot see that it matters by whose hands the poison is handed over the counter. If the view be insisted on that the sale of poison can only be made by a registered pharmacist, the result will be that in many country places the sales of poison will not be recorded at all, or, in order to evade the Act, something else will be sold and the poison be given away. It should be made to the interests of pharmacists to comply with the law, instead of telling them to think how they can evade it." The other letter was from Mr. J. M. Furness, a former President of the Society. Mr. Furness wrote: "The subject you are to discuss is very important, and although the assembly you will have can scarcely approach it without bias, yet it is to be hoped that this opposition to such illogical innovations as are proposed may be none the less effective on this account. The personal qualification and active supervision of the proprietor of each establishment dealing in dangerous and poisonous drugs is the very best protection the public can have."

Mr. E. R. LEAROYD moved:—

That this meeting cordially approves of the recent interpretation of the fifteenth section of the Pharmacy Act (1868), and is prepared to support the Pharmaceutical Council in prompt action in all cases of its infringement.

He had the greatest sympathy with all the members of their trade, whether they were qualified or not; but he pointed out that several years ago they were led to expect compulsory examinations, and consequently the present state of things in the trade was not altogether a surprise. The Pharmacy Act was passed in the interests of the public, and it had been a success in the direction its promoters intended. After speaking of the establishment of stores, and the irritation they had caused to chemists, he proceeded to discuss the real question at issue—the interpretation of the fifteenth section of the Pharmacy Act. He supported the interpretation of the Pharmaceutical Society, and said its general adoption would have a very beneficial effect upon pharmacists throughout the country. That interpretation meant that the pharmacists of yesterday should stand in one position, and the pharmacists of to-morrow in another. This was about the first provincial meeting to discuss if the interpretation of the Pharmaceutical Society was proper or not; that was to say, whether the section meant that the person who actually handed over a poison to the buyer was responsible—whether an assistant, apprentice, or substitute—or his qualified employer. He sympathised with old assistants who were not qualified under the Act, and yet discharged their duties so faithfully and well; but then, on the other hand, they had to carefully consider the object of the Act. He did not think it was intended that the master

or the principal of an establishment should be the only person to hand over and sell a poison, but he was convinced that the new interpretation of the section would benefit the pharmacists and tend to enhance their position.

Mr. G. ELLINOR seconded the resolution.

Mr. PRESTON remarked that he had no sympathy with registered pharmacists who broke the law wilfully or ignorantly, or with those who, not being registered, by subterfuges few or many, evaded the law. Yet, as reasonable men, they were led to look at the question from a broad and sympathetic point of view. The position in which they now stood was that the council of the Pharmaceutical Society had declared that the reading of Section XV. had been wrong for the last twenty-one years. It was strange that they should have gone on so long before they found out that the words in the section "any person" meant any person who was not registered under the Pharmacy Act. The law of prescript was that if for a certain number of years there had been agreement upon a certain reading of the law, it became the right reading. Such being the case in regard to the reading of the fifteenth section, he considered they would be wrong if they now said that the Pharmaceutical Society or any other body was right in interpreting "any person" as anyone who was not registered. His opinion was that the phrase in the Act which said "any person who shall keep open shop" referred not so much to any person in a registered man's shop as to any person who might sell poison in the open air. It had no reference to registered persons who kept open shop, and who employed assistants, and were responsible for their conduct. That this was the true reason he had only to point to the seventeenth section, which stated that the person on whose behalf any sales were made by an apprentice or servant should be deemed to be the seller. He, therefore, concluded that the seller, whether apprentice or servant, whether registered or unregistered, was none other than the registered proprietor of the establishment. (Hear, hear.) He confessed that he was surprised at the result of the recent prosecution. Referring to what is known as the widows clause, he remarked that a registered employé gave virtue to an unregistered widow, administrator, or trustee. He could come to no other conclusion than that the seller was the proprietor of the establishment, and the responsible person. If he (Mr. Preston) looked at the question from a selfish point of view, he should, of course, be glad of the new interpretation of the fifteenth section, but he desired to look upon it from a general standpoint. His opinion was that if the decision was taken to a higher court it would be reversed.

Mr. J. H. BRADWELL expressed his agreement with the view taken by Mr. Preston. Referring to labels, he said the presumption was, and had been so regarded for many years, that it should contain the name and address of the seller. Surely, he said, it was never intended by the framers of the Act that when a poison was sold the label should contain the name and address of the man who actually handed it over the counter. The Act evidently meant the proprietor of the establishment. Then as to the book of registry, the Act stated that it should be kept by the seller, who naturally was the proprietor of the shop.

Mr. HARLEY, speaking as an unqualified assistant, argued that the case which came before Justice Manisty and Justice Lopes showed that the Act meant the proprietor of the shop, and not merely the person who handed the poison over the counter.

Mr. ARCHER having expressed his concurrence with the views of Mr. Preston and Mr. Bradwell,

Mr. HUMPHREY said he doubted whether it was originally intended that the section should have the interpretation now given to it by the Society. Qualified assistants, of whom he was one, would benefit by it; but how would the new interpretation affect the small pharmacists who could not afford to keep a qualified assistant?

Mr. R. WATTS spoke in favour of the resolution.

Mr. NEWSHOLME also supported it. At the time the charter was obtained, in 1843, those who joined the Society were recommended to pass examinations. The whole intention of the Pharmacy Act was qualification, and it was not simply intended that the principal only should be qualified. He quoted two Scotch cases to show that the seller meant the person who actually sold the poison, and one of these occurred in 1887, so that the interpretation could not be

said to be entirely new. Of course it should be understood that an unqualified assistant could hand over a poison if his qualified master was standing by and took the responsibility. As to poison-labels, he argued that it was never contemplated that the name of the selling assistant should be placed on them, and the master's name was used for the purpose of tracing. It should be remembered that assistants did not always remain at a shop, whereas the principal was generally a fixture. The widows clause, again, pointed to the necessity of having a qualified man to sell poisons, and the object of the framers of the Act was that educated persons should sell deadly poisons. In reply to Mr. Preston, he said the Scotch decisions had not been reversed.

Mr. MARSHALL thought there was some doubt as to the seventeenth section, but still he agreed with the latest interpretation of the fifteenth.

Mr. ELLINOR expressed the opinion that it was originally intended that the hander over of a poison should be qualified, and the great mischief was they had not fully acted up to the Act in the past.

Mr. EARDLEY agreed with the resolution. He said the Act was passed not for the benefit of the chemists and druggists, but for the benefit of the general public. (Hear, hear.) It, however, struck him as strange that for twenty-one years they had gone on without there being prosecutions of unregistered persons who actually sold poisons. But the stricter the law was made the better it would be for the qualified chemists.

Mr. LEAROYD then replied on the discussion. He said undoubtedly the Act had been framed in the interests of the public, and they had to ask themselves whether they ought not to carry out the meaning of the Act, and whether they would be taking the responsibility placed upon them if they delegated to unqualified persons the responsibility of selling poisons?

Mr. PRESTON then formally moved the following amendment:—

That whilst the meeting desires to express its sympathy with the Pharmaceutical Council in its present trying ordeal, it thinks the recent interpretation of the fifteenth Section is out of harmony with the plain language of the seventeenth Section.

Mr. BRADWELL seconded the amendment.

On a show of hands being twice taken, the Chairman announced that the voting was equal, but he gave his casting vote in favour of the resolution, which was accordingly carried.

Legal Reports.

A DENTIST AND HIS FEES.

IN the City of London Court on November 8, Mr. Commissioner Kerr had a case before him in which a dentist's fees were loudly complained of, and the learned President of the Court gave a few of his own experiences in the matter. The plaintiff, Dr. Evelyn Pierrepont, of 22 Old Burlington Street, S.W., brought the action against Mr. R. P. Noah, a journalist, of 30 St. Swithin's Lane, E.C., to recover 28*l.* 7*s.* for professional services rendered.

Mr. Finch was counsel for the plaintiff, and Mr. Mellor for the defendant.

Mr. Mellor said what the defendant objected to was the grossly exorbitant charges made by the plaintiff. He had charged ten guineas for his attendance on the defendant, six guineas for the wife, and eleven guineas for a young lady who was recommended by the defendant. Much of the work charged for to the wife was not done. The defendant never undertook to pay for the young lady, Miss Madge Lambert. He simply gave her his card and recommended him as being a man who was, no doubt, a good dental surgeon.

Mr. Finch said the charges were the ordinary allowances made to men of the professional reputation of the plaintiff.

Mr. Mellor felt that to charge two guineas for an hour's services and one guinea for being half an hour late in an appointment was most excessive.

Mr. Commissioner Kerr said that might be so, but all he knew was that the charges were such as were made by West-end dentists. He had had some experience in the

matter himself. If a surgeon-dentist made an appointment and the patient did not keep it he always charged his fee. The defendant had made no arrangement with the plaintiff beforehand, thereby assuming he was an honest man; but now his charges were more than he thought they would be he wanted him (the learned Commissioner) to believe the plaintiff was a rogue, and that the charges were monstrous. He would find for the plaintiff, but the defendant could have the case tried by jury.

CUMBERLAND v. SANDERSON.

THE defendant in this case (writing from 54 Plaistow Road, West Ham) asks to explain that there are certain inaccuracies in our report of the above case last week. (1) He says:—"I left March 18, instead of March 24, giving the plaintiff notice of my doing so a few weeks before, stating also where I was going. Corroboration of that was in a letter from the plaintiff to me (March 12), which was read in court, asking me to give the place another month's trial. (2) The lamps were sold as a part and parcel of the fittings and fixtures. (3) In my examination in chief and cross, I denied most positively that I ever promised to pay the plaintiff, or that I was even indebted to him. (4) You omit that the plaintiff swore on oath in the interview we had before his solicitor, Mr. Scutts (not Scrutton), that I said nothing whatever about the place not being in proper repair, &c., yet his solicitor, Mr. Scutts, swore and had entry with these words: 'I refused, and would not enter into any agreement or lease whatever till he had put the place in repair, and that he promised to do so.' This he promised week after week, but could not get him to do anything."

A PATENT-BOTTLE DEAL.

ON Thursday, November 7, at Jarrow Police Court, Frederick W. Childs, of Leeds, again appeared on a charge of obtaining money from Dr. Bradley, of Jarrow, under false pretences on June 6 last. Mr. Dale, representing Dr. Bradley, said certain explanations had been received from Messrs. Ford & Warren, solicitors to the persons interested, and explanations had also been given by the defendant, and he (Mr. Dale) now wished on behalf of the prosecution to withdraw the charge. Mr. Mellor, for Mr. F. W. Childs, said an accusation of this kind was likely to affect the character and commercial credit of his client. His client owned a patent for bottles, and had made arrangements with the Hunslett Glass Works to carry out orders. Some dispute arose, and arrangements had to be made with another firm. Defendant had received a prepaid order from Dr. Bradley, but owing to certain circumstances it was impossible to deliver the bottles at the time required. The explanation which had satisfied the prosecution was the same as had been given to the bench at South Shields. The charge was then withdrawn.

THE UNQUALIFIED SELLER OF POISONS.—THE PHARMACEUTICAL SOCIETY v. WHEELDON.

AT the Wandsworth County Court, on Tuesday, November 12, before his Honour Judge Holroyd a summons issued by the Pharmaceutical Society against an unqualified assistant of the name of Wheeldon, in the employ of Messrs. Foster & Dallas, 1 Lavender Hill, Wandsworth, came on for hearing. Mr. Flux, solicitor, appeared for the plaintiffs, and Mr. Rawlinson, barrister, instructed by Dr. Taylor, solicitor, represented the defendant.

Mr. Flux, in opening the case, said the action was brought to recover a penalty under section 15 of the Pharmacy Act, 1868. By section 1 of that Act it was made unlawful for any person "to sell or keep open shop for retailing, dispensing, or compounding poisons, &c., unless such persons shall be a pharmaceutical chemist or a chemist and druggist within the meaning of this Act." There were also clauses which defined the poisons, and he would prove that the defendant had sold poison within the meaning of the Act. The defendant's name was not upon the Pharmaceutical Register, which was authorised by the Act, and he was therefore not a duly-qualified person. Section 15 of the Act said that a penalty might be sued for, and he was accordingly

suing under that section. The case had arisen in consequence of a death, which led to an inquest, and the attention of the Pharmaceutical Society was called to it by the coroner for that division of Surrey. The defendant, on Sunday, September 1, was left, apparently, in sole charge of a shop at which poisons scheduled in the Act were for sale. A girl went to the shop to make a purchase, and saw the defendant, who, in accordance with the requirements of the statute, signed the poison-book kept at the shop, and required the girl to do the same. The purchaser obtained the article she required, and in the course of the night was found to be very ill, and within forty-eight hours was dead. The poison-book he believed was in court, and he proposed to identify the signatures of both persons, and by that means show that the defendant did conduct the sale. He had medical evidence which would show that the article purchased was Battle's vermin-killer, which was known to contain strychnine in dangerous proportions. The deceased told the medical man that she had taken the poison, and he would prove that the post-mortem appearances and the symptoms were consistent with poisoning by strychnine. He submitted he should be entitled in the interests of the public, for whose protection the Act had been passed, to have a judgment for the sum of 5*l.*, for which the action was brought.

Mr. Flux then called for the poison-book, which Messrs. Foster & Dallas produced.

Mr. Rawlinson, in handing in the poison-book, said it was signed by the defendant in perfect accordance with the Act. The allegation was that an offence had been committed under section 15 of the Act. He admitted selling the vermin-killer, but thought it a great hardship that such an action should be brought. The Act came into operation in 1868, and there had never been such an action as this before.

Mr. Flux: I beg your pardon; there have been several.

Mr. Rawlinson: Well, they are not on record. It was suggested that this section meant that any chemist in any part of England who opened his shop for the sale of poisons, as every chemist did, could only sell them himself, and in that case could never leave his shop.

His Honour: If he had a properly qualified person there he could sell as much and leave his shop as often as he liked, but there must be a duly authorised person in charge.

Dr. G. F. Burroughs, of the Queen's Road, Battersea, deposed, in answer to Mr. Flux, that he attended the deceased.

Mr. Rawlinson objected to any question relative to the deceased. The question was not before the court.

Dr. Burroughs (by Mr. Flux): He knew Battle's vermin-killer, and also knew that it contained strychnine.

His Honour: What else does it contain?

Dr. Burroughs: I think indigo blue as a colouring matter, and some other ingredients, but what I do not know. The active principle of it is strychnine.

His Honour: I thought nux vomica would have been the active principle.

Witness: That is so.

By Mr. Flux: He did not know what percentage of strychnine was in the vermin-killer. He was not a chemist, and had never analysed it.

By Mr. Rawlinson: He came there to give evidence as to the death of the deceased. The poison was a deadly one if swallowed.

Mr. Flux: Have you any doubt that a packet of Battle's vermin-killer contains materials for the destruction of life?

Witness: I could not say.

Mr. Flux: Have you any doubt that this vermin-killer contains strychnine?

Witness: No doubt.

His Honour: What quantity of strychnine would kill a person?

Witness: A grain would do it.

Mr. Flux again put a question with reference to the deceased, but Mr. Rawlinson objected.

His Honour: If it is admitted that the defendant sold Battle's vermin-killer, it is admitted that strychnine is a poison.

Mr. Rawlinson, for the defence, said that the employer of the man who sold the vermin-killer and his manager were both qualified chemists. The court was asked to construe

the meaning of the Act in this way—that, although the chemist who keeps or manages the shop, and gets the profits of the shop, is a properly qualified chemist, and makes up the article that is sold, yet, if his assistant or apprentice is not also a chemist, then the unfortunate assistant is to be liable to a penalty for selling poisons. He did not know of any action brought under the particular section of the Act before. It was invariably the custom for chemists to act in that way. A chemist who manages a business probably might have an assistant who was not a qualified man, and if he leaves the premises he merely allows him to retail over the counter poisons of which he knows the ingredients. That sale is on account of the man who keeps the shop, and the words in the Act, "Any person to sell or keep open shop," were not meant to apply to the assistant, but to the person who actually kept the shop, and who did the work. It would be a very serious matter for the majority of small chemists in the country if the court held now, for the first time, that the section of the Act applied in that way. The action was one for a penalty, and the statute must be clear, and the words expressly show that the person charged is liable. The statute might have been clearer upon the point. The object of the Act was that there should be some properly qualified person in charge of the shop who knows what poison there is in the article he is selling, but he submitted it was never meant to apply to any unfortunate apprentice who, under proper supervision, as in this case, sold the poison. In the case of the Pharmaceutical Society v. the London and Provincial Supply Association, which came before the House of Lords, Lord Selborne, in construing section 16, said "there was a special provision for persons carrying on a chemist's business in case of death, provided there was in the business a duly qualified assistant. It by no means followed that all the drugs would be necessarily sold by that assistant, or that he might not be under the general superintendence of a manager necessarily qualified." Lord Selborne assumed there that there might be a duly qualified assistant doing certain work, and having an assistant who might sell these things prepared by the qualified man in the shop. The other case he would refer to was that of *Templeman v. Trafford*. In that case it was contended that the word "sell" in section 15 was in a sense contradistinguished from the words "keep open shop," and so possibly might apply to sales which were not in open shop. Mr. Justice Groves held in that case that the word "sell" apparently applies to the person carrying on the shop, and not necessarily to the person who hands the article over the counter. The authority of the case which came before the House of Lords was very much qualified, if not entirely taken away, by the nature of Lord Selborne's judgment, where he clearly anticipated a state of things where there is a qualified practitioner, although the actual sale is conducted by the apprentice.

His Honour: If a chemist is not a properly-qualified man he must not sell the poison. I do not see where the hardship is.

Mr. Rawlinson: There is great hardship in small country cases. In small towns you will find men who have practically no qualified assistants at all.

His Honour: An unqualified man cannot sell.

Mr. Rawlinson: The Act is meant to stop persons dealing in poisons who do not know what they are selling. Here you have an apprentice simply left to do the sale over the counter. The thing was made up in a packet. Section 17 deals with the formalities as to sale, and there is no suggestion that an offence has been committed under that section. The court had to decide whether the man who took the money over the counter for a made-up preparation was selling poison within the meaning of the Act.

His Honour said: This is a case under the 15th section of the Pharmacy Act, 1868. That Act says that any unqualified person who sells poison is liable to a penalty of 5*l*. The person who sells is liable, whether he is master, or servant, or apprentice. I think, therefore, there must be judgment for the plaintiffs with the 5*l*. penalty. This is the first case of the kind, and I hope it will go to a higher court.

Mr. Flux: We shall be pleased to offer every facility for that purpose.

On application by the plaintiffs, costs for attendance and witnesses were granted.

BANKRUPTCY REPORTS.

Re ALEXANDER W. TOWNSHEND, 128 Bishop Street, Port Dundas, Glasgow.

BEFORE Sheriff Balfour, at Glasgow, on November 6, Alexander W. Townshend, sole partner of the firm of R. & A. W. Townshend, chemical manufacturers, of 128 Port Dundas, was examined in bankruptcy. Mr. Townshend stated he had been in business with his brother up to his death in 1887. They succeeded their father, who advanced them to the extent of 2,500*l*. in cash, plant, and stock. At the end of 1883, when he balanced his books, they showed a surplus of 7,000*l*., but when he made the next balance, at his brother's death, he found a deficit of 5,356*l*. Between 1883 and 1887 he had overdrawn his salary to the amount of 1,550*l*., and his brother to the amount of 2,450*l*. He had in 1886 received a report that a profit of 1,800*l*. was coming from the business. He did not communicate the state of his affairs to his creditors in 1887 because there was a proposal that a syndicate should carry on the business. Between 1887 and the date of the trust deed he made a further loss of 1,000*l*. The liabilities amounted to 10,437*l*. 4*s*. 8½*d*., and the assets to 820*l*. 4*s*. 5*d*., leaving a deficiency of 9,687*l*. 0*s*. 3½*d*. The examination was adjourned.

ROLAND FINCH, Silvertown Chemical Works, Victoria Docks, Chemical Manufacturer.

A RECEIVING order has been made on this estate, on the application of Messrs. Davis, Son & Co. The assets are stated to consist of stock of the value of about 4,000*l*., and book debts, 4,000*l*.; the plant, which is estimated at 16,000*l*., being in mortgage. The amount of the liabilities did not transpire.

Re JOHN BROWN, Rochdale, Mineral Water Manufacturer.

AT the Rochdale Bankruptcy Court on Friday, November 8, the debtor appeared for his public examination. In reply to questions by the Official Receiver, he stated that his father, who is a chemist and druggist, took him into partnership in his mineral-water manufacturing business in January, 1886. He received no share of the profits. He lived at home and was allowed a little pocket-money. His father took all the profits—"when there were any." Two years later debtor's father handed the business over to him. His father still kept on the business of a chemist and druggist, with which debtor had nothing to do. Debtor borrowed 60*l*. His receipts in the summer months were 10*l*. or 12*l*. a week when he commenced the business. His trade had been principally with small shops. When he first took the business the price he received was 1*s*. a dozen. Now it had come down to 6*d*. or 7*d*., and in addition the price of sugar had advanced. He attributed his failure to bad trade, keen competition, and the advance in the price of sugar. Two or three new manufacturers had commenced in Rochdale, and had brought down the prices of mineral waters. The Registrar pointed out that they would have just the same things to contend with as debtor had. The Official Receiver: Why couldn't you sell at 6*d*. or 7*d*. as they did? Debtor: Because it would not pay to sell at anything less than 8*d*. The Registrar: But it paid them. The debtor's property had realised 116*l*. In his statement he estimated that it would realise 174*l*. The amount realised was "a tremendous lot less" than the cost price. As no creditors appeared to object, debtor was allowed to pass his examination.

Re JESSE FISHER & SON, Madeley and elsewhere, Chemical Manufacturers.

THE appeal of Charles James Shackleton, trading as above, against the decision of the County Court Judge of Madeley in regard to his discharge, came before Mr. Justice Cave and Mr. Justice Charles on Wednesday. Mr. Cooper Willis, Q.C., on behalf of the appellant, contended that the condition of the discharge (a judgment against him for

4,038*l.* and costs, to be paid in annual instalments of 75*l.*) was too stringent, and that he should be unconditionally discharged. Mr. Willis proceeded to give particulars of the bankruptcy and the hardships which his client had to contend with in carrying on his business. Mr. Muir Mackenzie replied that the appellant, who had been brought up as a linen-draper, had entered into the chemical business, having no knowledge of it, and he contended that this was a rash and hazardous act. Mr. Justice Charles said it was an act of great rashness, and their Lordships agreed to alter the order by directing the discharge to be suspended for three years from the date of the order in the court below. The appeal was therefore allowed; costs to be taken out of the estate.

NATHAN SMITH, Amersham, Chemist and Dentist.

THE public examination of this bankrupt was held on November 4 at Aylesbury. In reply to Mr. Mallam, jun., who appeared for the Official Receiver, the debtor said he started business at Amersham as a chemist and dentist in March, 1878, with a capital of between 300*l.* and 400*l.* His wife's property was about 300*l.* The business cost 323*l.* odd, and he had between 50*l.* and 60*l.* from his mother. He had been a chemist's assistant. He married in May, 1878, and there was no settlement, either before or after marriage, on his wife. He found his wife had a share in property left her by an uncle, and she obtained a mortgage on it. She raised 300*l.*, and gave it to him to go into business with. They had to pay interest on it for some years after. When a settlement was made and the property realised there was only some 20*l.* more for them. Since his mother's death he had received from her estate about 780*l.* 17*s.* 7*d.* at different times. He was in partnership with his brothers, C. T. and J. A. Smith, and that was dissolved in September, 1884. He kept various books in his business, and banked with Messrs. Butcher. He insured his life—at first for 100*l.*, and then for 400*l.*—but he was unable to keep up the payments, and the company granted him a policy for 200*l.* Mr. Phillips held that policy. He had a loan of 25*l.* from him, but 31*l.* was to be paid back. He had also given a bill of sale to Mr. Green to secure 35*l.* He borrowed 30*l.* in order to pay out an execution by Schweppe's, amounting in all to 45*l.* He did not file his petition at that time because three people were in treaty for the business, and he hoped to sell it. In August, 1885, he insured his stock for 800*l.*, and furniture for 300*l.* At that time he had a heavy stock of drugs, especially of quinine, valuable lots of empties, &c. He let the policy lapse last year. The Registrar remarked that 800*l.* worth of stock was a large amount for a place like Amersham. The debtor said he reduced his stock as much as possible, knowing that he was getting behindhand. His ill-health had prevented his giving that supervision to his business which he ought to have done. He admitted that there was a great difference between 800*l.* and 92*l.* 5*s.*, the estimated value of the stock under the bankruptcy. There were many things in his business which were of great value to him, but which would be worthless to others. He estimated his income during the past three years at about 125*l.* He was obliged to keep an assistant, and his horse and trap was of great use to him, and was paying well till 1887, when slander affected his business. He had sold the horse, trap, and harness. He paid the assistant 45*l.* a year, with board and lodging. Last year his income dropped to 50*l.*, after deducting trade and other expenses. On some things in a chemist's business there were large profits, but patent medicines and proprietary articles were sold at cost price. The utmost average profit would be 20 per cent. He did not think he made over 2*l.* a week average profit for years, and the last eighteen months he had not been making anything like that. He had no family, but an invalid wife. His household expenses were 150*l.* a year. He had heavy losses on quinine: he bought a lot and the price went down. He studied for an examination in dentistry, but failed in one subject. In May the Conservative party presented him with 20*l.* He used it to meet his liabilities. His principal losses had been through the effect of slander on his business. His takings fell to three-fourths after that. The matter was adjourned for the transcription of the shorthand writer's notes.

Gazette.

PARTNERSHIPS DISSOLVED.

Davis & Co., Salford, proprietors of the *Chemical Trade Journal*.

Whicheer Underwood & Peters, Cannon Street, City, oilmen and drysalers.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS.

Howe, John, Green Street, near Sittingbourne, surgeon.

Kenrick, James Howard, Coleford, Somersetshire, surgeon.

M'Kay, Hugh (trading as M'Kay Brothers), Gateshead, mineral-water manufacturer.

Morgan, John Morris (trading as the Ynysddu Chemical Company), Machen Upper and Ynysddu, manufacturing chemist.

Rogers, Harry Cornelius Edwin, Birmingham, physician and surgeon.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

Evans, John Robert, Denbigh, chemist and druggist—Nov. 18, Bankruptcy office, Chester; Dec. 5, Court House, Bangor.

Halsey, Walter, Watford, formerly mineral-water manufacturer, now out of business—Nov. 22, Mr. George Annesley's, solicitor, St. Albans; Nov. 22, Court House, St. Albans.

Howe, John, Green Street, near Sittingbourne, surgeon—Nov. 22, Official Receiver's office, Canterbury; Nov. 22, Guildhall, Canterbury.

Kenrick, James Howard, Coleford, surgeon—Nov. 27, Official Receiver's offices, Bristol; Dec. 17, Mechanics' Hall, Frome.

Leighton, Sarah Jane, Durham, chemist and druggist, widow, and surviving executrix and trustee of J. H. Leighton, deceased—Nov. 19, Three Tuns Hotel, Durham; Nov. 26, Court House, Durham.

M'Kay, Hugh (trading as M'Kay Brothers), Gateshead, mineral-water manufacturer—Nov. 20, Official Receiver's office, Newcastle-on-Tyne; Nov. 19, County Court, Newcastle-on-Tyne.

Morgan, John Morris (trading as Ynysddu Chemical Company), Machen Upper and Ynysddu, manufacturing chemist; Nov. 21, Official Receiver's office, Newport, Mon.; Nov. 23, Town Hall, Newport, Mon.

Tyson, Thomas Balmforth, late of Wortbing, pharmaceutical chemist—Nov. 19, Bankruptcy Buildings, Portugal Street, Lincoln's Inn; Nov. 23, Court House, Brighton.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Thomas, Benjamin, Llanstephan, chemist, druggist, wine merchant, and general dealer—discharge suspended for six months.

ADJUDICATIONS

Howe, John, Green Street, near Sittingbourne, surgeon.

Kenrick, James Howard, Coleford, surgeon.

M'Kay, Hugh (trading as M'Kay Brothers), Gateshead, mineral-water manufacturer.

Smith, Nathan, Amersham, chemist and dentist.

TO TEST THE FASTNESS OF COLOURS.—If fast the cloth when damped and rubbed on clean white paper should leave no mark. Laid between two slips of white paper and smoothed out with a hot sad-iron the sample should leave no coloured impress on the paper. Laid beneath a sheet of thick paper, in which small holes have been cut, and exposed to direct sunlight for several hours, the exposed parts show a change if the colour is not "fast" to light.

WHAT WE ARE COMING TO.—An American contemporary predicts the reading of the prescription of the future to be somewhat as follows:—

Ol. morrhue (Baker's)	..	..	..	3iij.
Pu. acacie (Squibb's gran.)	..	..	..	3j.
Aque lauro cerasi (Cheris)	..	..	..	3j.
Syr. hypoph. (Fellows)	..	..	..	3ij.
Ol. menth. p. (Hotchkiss)	..	..	..	gtt. x.
Aq. (Jones' filter), q.s. ad	..	..	..	3viij.
Emulsify in mortar (Wedgewood).				
Put into vial (Whitall, T. & Co.).				
Cork (Armstrong).				
Label (Gast Lithogr. Co.).				

Dose: Tablespoon (Mermod, Jacc. & Co.) three times a day.

PHARMACEUTICAL MAYORS.

MR. FREDERICK E. SCHOFIELD, who was unanimously elected mayor of Morpeth, is a native of that town, where he has been in business for many years as a chemist and druggist. He appears in the Liberal ranks.

MR. THOMAS PERRY BANE, who occupies the mayoral seat at Marlborough, is a chemist and druggist, of Conservative tendencies; and Mr. HIGSON, the Liberal mayor of Blackburn, is father of Mr. John Higson, chemist, of that town.

MR. CHARLES HOBSON, who has been elected for the second time mayor of Beverley, is a native of the borough, and has been in business there on his own account since 1847. He is a member of the Pharmaceutical Society, local secretary, and 67 years of age. Mr. Hobson was not on the council when he was appointed to the mayoralty last year, but he has now been elected an alderman as well. Associated with him on the council are Messrs. Thomas Marshall and Thomas Vickers, both of these gentlemen being also chemists. These three pharmacutists are all of the Conservative persuasion.

The citizens of Gloucester on Saturday last did honour to one of its oldest tradesmen, Mr. WILLIAM STAFFORD, chemist, Northgate Street, by appointing him to the position

Finance Committee in January, 1886, and in that capacity has acquired a high local reputation. Mr. Clayton is a Liberal in politics, but his election to the mayoralty of Birmingham was unanimous.

MR. BENJAMIN ROBINSON, who has been unanimously elected mayor of Salford, may be said to have had fame thrust upon him. In ordinary circumstances, four years' service on a town council is not regarded a sufficient qualification for the occupant of the mayoral chair, and that is all the acquaintance with municipal work which Mr. Robinson possesses. But short in point of years as has been Mr. Robinson's work on the council, it has sufficed to show that he has capabilities of a high order. In addition to his council work he has seen considerable service on the Salford board of guardians, of which body he is at present the chairman. Mayor Robinson was born in 1830 at Kellet, Lancaster, where his father was a maltster. He was educated at the grammar-school at Bolton-le-Sands, and at the age of 16 was apprenticed to Mr. Edward Jackson, chemist and druggist, Lancaster. During his apprenticeship he studied chemistry at the Mechanics' Institute. In 1851 he went to London and gained experience as assistant in a City house. He passed the Minor and Major examinations of the Pharmaceutical Society in 1855, and subsequently opened a drug business in premises at the corner of Cross Lane and Broad Street, the leading thoroughfare in the Pendleton district of the borough of Salford. There he remained for about a quarter of a century. Some seven years ago he disposed of



MAYOR OF BIRMINGHAM.



MAYOR OF BEVERLEY.



MAYOR OF MORPETH.



MAYOR OF SALFORD.

of chief magistrate for the city. Mr. Stafford, who will be 80 years of age on December 14 next, has been in business as chemist and druggist since the year 1833, and still continues to take an active part, and is daily to be seen behind his counter. For thirty-six years he has represented one or other of the wards in the Conservative interest, but on contesting the most Radical ward in the city on November 1 was defeated by seven votes. Gloucester has been noted for its old chemists. At present there are three octogenarian chemists resident in the town (two of whom have, however, retired from business), and last year another died at the great age of 92.

MR. FRANCIS CORDER CLAYTON, the new mayor of Birmingham, comes of a well-established Quaker family in Essex, and was born at Kelvedon in that county in 1843. He was educated at the Friends' School at York, the late Mr. J. F. B. Firth, M.P., deputy-chairman of the London County Council, having been one of his schoolfellows. In 1858, on leaving school, he went as apprentice to Messrs. Harvey & Reynolds, chemists, Leeds, and served his appointed term of five years. After living and studying some time in London, passing the pharmaceutical examinations meanwhile, Mr. Clayton, in 1867, accepted the appointment of chemist to Messrs. John & Edmund Sturge, of Wheeley's Lane, Birmingham, and proved so valuable an associate that he was taken into partnership the next year (1868). In 1886 he purchased his partner's interest, and sold the business in 1887. Side by side with his successful commercial career Mr. Clayton has pursued useful public work. He was elected on the Board of Guardians in 1877, and came on the Town Council first in 1882. He became chairman of the

the business to Messrs. Jeans & Co., and has since attended only to his manufacturing business in Church Street, Pendleton. Since he began to devote himself to public work Mr. Robinson has left the active management of the business to his second son, Mr. W. B. Robinson. His two other sons are both in medical practice.

A CURIOUS BORAX MINE.—The *Oil, Paint, and Drug Reporter* writes as follows about a curious borax mine in the Calico district of California:—"Usually borax is obtained all over the world by collecting the accumulations of the biborate of soda in the beds of dry lakes, where the borax has been left as a residuary deposit, the same as salt and gypsum. The mine referred to is a vein found enclosed in sandstone and shale, and the borax is mined the same as quartz or any other mineral. Beautiful crystalline specimens of snowy whiteness are frequently found. The mine is a geological curiosity. The origin of the borax mine is simple enough. In past ages the now nearly vertical vein was a bed of borax in the bottom of a dry lake, where the deposit had accumulated by the evaporation of the waters of the lake, which contained the mineral in solution. Subsequently the water spread over the land and lake, and mud and sand were carried down into the lake, and the borax was covered. This process continued until hundreds of feet of sedimentary deposit had accumulated. In the course of time these hardened and became rocks. When the main range of the Calico mountains was uplifted the borax deposit was also tilted with its enclosing rocks, and it now has every appearance of a vein. It follows perfectly, however, the line of sedimentation of the adjacent rock."

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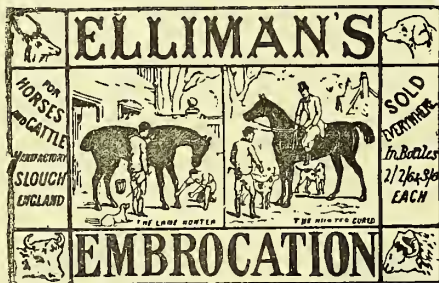
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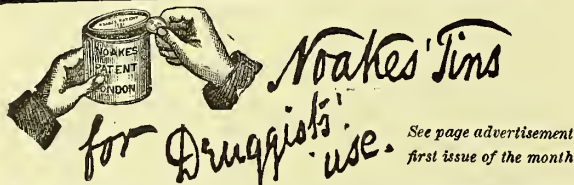
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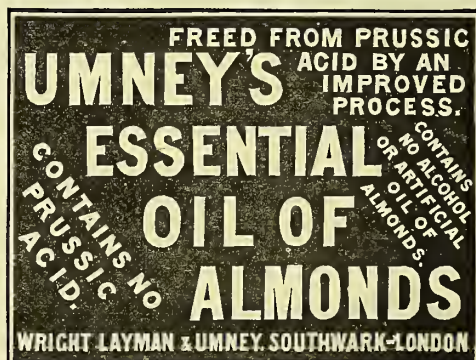
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See Diary, Pages 17 and 18.

EDITORIAL NOTES.

THE UNQUALIFIED SELLER OF
 POISONS.

THE decision of the Wandsworth County Court judge in the
 case of the Pharmaceutical Society v. Wheeldon was the
 almost inevitable result of previous decisions, of the opinions
 expressed by eminent law lords, and, we must add, of the
 words and spirit of the Pharmacy Act. The Act declares

explicitly that the person who sells poison must be qualified, and that an unqualified person who shall sell poisons is liable to a penalty of 5*l*. But for this the Pharmaceutical Society only can sue. The limitation of the power to sue to a body, which may be assumed to be friendly to the trade generally, is an assurance against frivolous or vexatious proceedings; but it devolves on the Society, as trustee of such power on behalf of the public, a responsibility in regard to prosecuting when there is real necessity for so doing.

Along with this decision we are able to report a discussion which took place at Sheffield on Wednesday evening in reference to this question. We note that after a good debate the chemists there were equally divided in regard to the interpretation of the section, and we suspect that this will prove to be somewhere about the general proportion of opinion in the trade. That the interpretation of the fifteenth section of the Act once more recorded is good for qualified men is obvious; that it is awkward for unqualified assistants, and may be sometimes inconvenient to chemists in a small way of business, is equally clear. But these considerations cannot affect the meaning of the statute. Mr. Preston's argument appeared to be that a majority of chemists having misunderstood the section—or, we will say, had understood it in a certain way—for many years, their opinion ought to be taken now as final. He himself understands the expression "keep open shop" to refer to persons who sell goods in the open air, but surely no number of votes in favour of that view would make it authoritative. Other speakers mix up the fifteenth and the seventeenth sections of the Act. They note the words in the latter that the seller shall be the person on whose behalf the sale is made, but they overlook the words that that interpretation is given "for the purposes of this section," which are conclusive as to the indication of the seller in other sections.

The topic seems likely to be one that will "go," and the only further word we have to say to speakers and writers on it is that for convenience sake they should carefully distinguish between the questions, What is the meaning of the Act as it stands? and What, in their opinion, a Pharmacy Act ought to say?

It will be noted that the actual defendant in the Wands-worth case writes us a letter on the subject of the action, from which we gather that he is prepared to carry the case to a superior court if the trade feel that their interests are as much jeopardised as some of them seem to think. We shall be happy to give whatever publicity is necessary towards securing a fair fight, though we cannot profess to sympathise with the advocates for the defence. The response to Mr. Foster's letter will be the measure of the confidence of chemists in the reliability of their opinions.

NEWCASTLE CHEMISTS AND THE MEDICINE-STAMP ACTS.

It will be remembered that in February last the chemists of Newcastle and its district held a large public meeting in reference to the Medicine-stamp Acts generally, the primary occasion of their assembly having been that claims had been put forward on behalf of the Revenue for payment of stamp duty in respect of a preparation of local popularity known as "Dale's Plaster." An influential committee was formed at the time and instructed to communicate with the Board, and ask "that the terms of the memorandum agreed upon with the Trade Association of Great Britain in May, 1886, be adhered to, and that in future warning be given before prosecutions be instituted in the case of first offences, where the authorities are satisfied of the *bona fides* of the offender."

We pointed out at the time that this was a misapprehension of the report of the interview. The Board refused to grant the conditions asked by the deputation, and no mention at all of any such conditions appeared in the memorandum. The Newcastle committee have now issued a report of their actions, and they will submit this to another meeting on Wednesday evening next. They wrote to the Board, it appears, on February 19, and, disregarding our warning, intimated that the condition we have quoted had been incorporated in a memorandum, and they asked the Board if it was their intention to adhere to this arrangement. Mr. Cousins, secretary, replied on March 1, and told them that their memorandum had been laid before the Board, and that "As regards 'Dale's Plaisters' there can be no doubt of their liability to stamp duty as a nostrum, or proprietary medicine or medicament. In some cases, in fact, the parties have claimed in the label or handbill the exclusive right of making these plaisters." The secretary goes on to say that the Board have adhered, and will continue to adhere, to the arrangement made in 1886, but that his correspondents appear to be under some misapprehension in regard to the arrangement. He points out that the "arrangement was that, in the case of a first offence, the demand for explanation should be made by the Board's secretary, and not by their solicitor, and that a penalty for the first offence would not be imposed if there was reasonable doubt as to the liability of the article, and the *bona fides* of the vendor was evident." This arrangement, he adds, is not referred to in any way in the memorandum issued by the Trade Association, and it is noticed that in an article in THE CHEMIST AND DRUGGIST of October 16, and in an editorial note in the same publication of October 23, exception is taken to the statements made at the Newcastle meeting. He also tells them that there can be no "reasonable doubt" of the liability of "Dale's Plaster," and that the memorandum, which they had admitted had been freely circulated in the trade, should have made the liability clear. The committee wrote again to ask under what clause of the Act "Dale's Plaisters" were liable. They were told that the Act makes plaisters liable if they are held out or recommended as nostrums or proprietary medicines; and that the use of the possessive case in the description put the article forward as proprietary, besides which some persons had claimed an exclusive right to make the plaisters.

To this correspondence the committee add some information they have collected, which, they say, "affords ample evidence that the Inland Revenue authorities are unable clearly to define the law, and seem to be guided in their interpretations by expediency rather than by principle." They then give specimens of labels which have been declared to be liable at one time and not liable at another time. It is quite possible that in some of these instances there may have been other circumstances not here stated which guided the Board. It is quite possible, too, that in giving opinions on many thousands of labels the Board's officers may have slipped occasionally, but we are inclined to the opinion that the advantage of being able to get an authoritative decision regarding the liability of any article to stamp duty is so great that too much should not be made of such occasional discrepancies.

The committee wind up their report with several recommendations, with some of which we heartily agree. We agree, for example, with the following suggestions:—That the possessive case of a person's name used in connection with a preparation should not be construed to involve liability to stamp duty, unless exclusive right of property be claimed by the maker; that the advertisements or publica-

tions of one man should not make another man's preparation liable to duty, unless the maker claims that his preparations are the same as those the advantages of which have been advertised or published; and that labels describing uses and doses of common medicines ought not to involve liability. If the Newcastle chemists will work in these directions they will do a real and substantial service to the trade.

THE SALE OF FOOD AND DRUGS ACT.

THE report of the Local Government Board for 1888 has just been issued. There are now, it appears, 52 counties and 184 boroughs, besides the several vestries and district Boards of Works in the metropolis, where public analysts have been appointed with the approval of the department. The reports which the analysts are bound to forward to the local authorities, and copies of which have to be sent to the Local Government Board, are only required to indicate the number of analyses performed, the classes of goods analysed, and the analyst's own statement of the results. For many years these statements were accepted as if they had been mathematically proved, though no reader of police reports could have failed to notice the slender basis of investigation on which many analytical reports were based. We pressed upon the Local Government Board the importance of ascertaining not only what the analysts said, but also what the courts said, and last year, for the first time, it was announced that the Board had asked for the further information. They could not demand it, and only 93 districts out of about 250 complied with their request. In those districts the analysts had reported against 1,884 samples, and proceedings had been instituted in 1,307 cases. The Board had not asked how many convictions were obtained, and the local authorities did not provide the information. It did appear, however, that the total sum recovered in fines was 1,884*l.*, an average of about 29*s.* for each case instituted. That was in 1887. In 1888, the year now reported on, there were 26,344 samples examined, or about 1,900 more than in 1887. The percentage of samples reported by the analysts to have been adulterated was 12·8 in 1887, and only 10·8 in 1888. The Local Government Board have again asked to be informed "in how many cases proceedings were actually taken, and with what result," and they have had answers from 101 districts in which 1,815 samples had been reported against. Prosecutions were instituted in 1,337 cases, but again we are not told in how many of these actions convictions were obtained. We are informed, however, that a total of 1,782*l.* was recovered in fines in those 1,337 cases prosecuted. That was an average penalty of 27*s.* There were six fines of 15*l.* each, two of 10*l.* 15*s.*, twenty of 10*l.*, seven between 5*l.* and 10*l.*, and sixty of 5*l.* The Board seem to think that magistrates generally permit the profitable business of adulteration to be carried on at too cheap a rate.

Of the 26,344 samples examined during the year, only 383 were described as drugs; of these 28 were reported against—a percentage of 7·3. It was 10·9 in 1887. Milk furnished the bulk of the analysts' business. Of this article 10,859 samples were tested, and 1,292 were found to be adulterated. Only four samples out of 689 of bread, only two out of 429 of flour, none out of 144 of sugar, and none out of 461 of tea were found unsatisfactory. Butter offended 363 times out of 3,499, and coffee 141 times out of 1,172 times. Spirits show the highest proportion of bad marks, 415 out of 2,323; and lard takes next place with a record of 299 out of 1,782 samples. It is a curious commentary on the competence of

the analysts and on the value of the official statistics to find that in 1887 the proportion of adulterated samples of lard was returned at 5·9 per cent., and that it jumped to 16·8 per cent. in 1888. It was not the adulterators that had become three times as active, but the analysts who had become a little better informed. Mustard has a record of 75 out of 793, and pepper figures for 101 bad samples out of 1,315 tested. Confectionery and jam come out well with only seven bad samples in 295, wine is condemned twice out of 45 times, and beer 11 times out of 399 investigations.

Milk shows a considerable improvement, the percentage of observed adulteration having fallen from 14·9 in 1887 to 11·9 in 1888; but the Local Government Board seem to be beginning to doubt whether their very elaborately arranged figures really prove much. They note the fact that the adulteration of bread and flour seems to be almost abandoned, and they suppose that this is partly because their cheapness makes it scarcely worth while to tamper with them. They think the sale of a mixture of compounds of fats as butter has received a substantial check. The percentage of samples reported against fell from 17·5 in 1887 to 10·4 in 1888. This is no doubt due in a great measure to the operation of the Margarine Act, 1887, which places the sale of spurious imitations of butter on an exceptional footing. The adulteration of coffee with chicory still flourishes, though not to the same extent as it did. In the years 1877-81 the percentage of samples reported against was 18·6; last year it was 12·0. In many cases, however, when adulteration is detected, the proportion of chicory is enormous, amounting sometimes to 80 and even 90 per cent. of the mixture, which would be most accurately described as chicory slightly flavoured with "coffee"! As chicory can be bought at about 2*d.* a pound, its sale at the price of coffee is very profitable. The practice of adulterating sugar, which was common in the days of heavy duties and high prices, seems now to have been entirely abandoned. Pepper adulteration, which had increased of late years, seems to be again diminishing. One adulterant employed is ginger-fibre, from which the active properties have been extracted by ginger-beer manufactories. This, after being dried, is ground up and mixed with pepper, in which, in the words of a public analyst, "it is about as useful as so much sawdust." Commenting on the apparently increased adulteration of lard, the Board remark that some analysts report as adulterated samples which do not attain a standard of almost ideal purity, and in such cases the samples are classed as adulterated in the return, though it is extremely improbable that a prosecution against the vendor would have been successful. For instance, one analyst reported against a sample of lard on the ground that it contained 0·2 per cent. (or 1 part in 500) of water. They also note the modern discovery of cotton-seed oil as an adulterant. Water is practically the only adulterant of spirits, and the old practice of attempting to conceal the dilution by the addition of chemicals seems to be no longer in vogue. In one exceptional case, however, a spurious "whiskey" was found to be composed of coarse spirit and water, with so unpleasant a drug as guaiacum to flavour it.

Among articles not specially enumerated, a large number were of German yeast, which is often adulterated with starch. Aërated waters were in some instances found to contain traces of lead, due to carelessness in manufacture. In the county of Durham a small fine was inflicted for the sale as "clove pepper" of a sample which was not ground cloves, but a much cheaper substance called pimento, or allspice. Subsequently, however, there appeared to be reason to believe that clove pepper was a trade synonym for allspice, and the analyst reported that the case "judged by

the light of what is now known, ought not to have been made the subject of legal proceedings." Cheese has been more abundantly tested, especially in Cheshire, but of 186 samples analysed, only two were reported against.

THE PETROLEUM SUPPLY.

THE rumour, which has received wide currency during the past summer, that the petroleum wells in the Caucasus are showing signs of exhaustion has affected the price of refined petroleum in the manner which was expected. Prices have gone up, and, although they have fluctuated somewhat during the past month, consumers of illuminating oils are still paying 1*d.* and even more per gallon above the prices of a year ago. Oil operators have, therefore, had their reward, and some semblance of truth has been given to the rumours of Caucasian insufficiency. It would be a serious matter for Russia if the source of wealth which Nature opened to her some twenty-five years ago were to be closed in the spring-time of its fruitfulness; and it is not surprising that the Russian Government took the earliest opportunities to deny the allegations. Now, what may be regarded as an independent denial is given to the rumour by Professor Mendeleeff in a letter addressed to Mr. Ludwig Mond, ex-President of the Society of Chemical Industry, and published in the journal of the Society. Professor Mendeleeff has had intimate acquaintance with the Caucasian petroleum district since 1863; he has studied the subject on the spot, has surveyed the country, knows its geological aspects, has propounded a most ingenious theory regarding the formation of petroleum, and is familiar with all the statistics of the industry. He is, besides, equally intimately acquainted with the American petroleum fields. These qualifications entitle him to speak with authority, and his scientific mind would counterbalance any possible inclination towards an undue affection for the product of his own country.

Professor Mendeleeff first remarks that the rumours of exhaustion are not new. Four years ago they received currency, and the matter was sifted by competent engineers, with the result that it was shown that there was not one single trustworthy symptom of exhaustion in Baku, and petroleum was actually running to waste for want of means of storage. Since that date (1885), when 116,000,000 poods (12,000,000 barrels) were produced, the quantity increased to 180,000,000 poods in 1888, and up to the beginning of August no less than 125,000,000 poods of oil had been extracted this year. These figures show an increasing rather than a decreasing supply, and Professor Mendeleeff maintains that the highest degree of productiveness has not been attained. In proof he advances several statements. First, a comparatively small part only of the petroleum region is worked; there are less than 170 wells at work, and those which yield less than twenty barrels per day are not worked at all. Second, there are other regions of the Trans-Caucasus which are petroliferous, but not worked; and, third, owing to the comparative geological recency of the formation of petroleum in the district, and the activity of the mud volcanoes, it is probable that the underground processes are still going on. The latter statements are thus graphically contrasted with the conditions in North America:—"Near the Alleghanies and near the naphtha wells of Pennsylvania," says Professor Mendeleeff, "there are no mud volcanoes like those found in Baku, in Tamany, and generally near the Caucasus, and which form, so to say, the natural satellites of naphtha. They are evidently the breathing-holes of the terrestrial interior, which evolve mud, water, and steam, and let out the burning gas. In Pennsylvania long ago this process terminated, which is still continued

in the Caucasus. We find naphtha here and there in similar conditions with regard to space, but the conditions of geological periods in both countries are very different."

The question naturally arises, Why does working only take place in Baku, seeing that other regions of the Caucasus are petroliferous? And to that Professor Mendeleeff replies that Baku is the region most accessible to the Volga, the great waterway of Russo-Asiatic commerce; but the pipeline will bring these distant regions nearer in the future, when the demand for petroleum and the prices which it commands merit more extensive exploitation. It is these latter factors, and want of capital, which at present keep the Caucasian fields in a position secondary to those of the United States. Here the world-famed chemist shows himself in a new light; he grapples with commercial statistics in as admirable a manner as he has done with chemical problems. The substance of his remarks on these points may be summed up in a few sentences. In Baku, when the springs are at their greatest activity, the price of the crude oil on the spot goes as low as $\frac{1}{2}$ copeck per pood, as compared with the Pennsylvanian spot parity of 10 to 12 copecks per pood. With prices less than $1\frac{1}{2}$ copeck in Baku development cannot go on, for it would need 5 copecks to do that. Means of storage are required, and the termination of the pipe-line is an urgent necessity for bringing the Baku product into competition with the American. Until now there has been no possibility of exporting large quantities of the products, and three-fourths of the crude material have actually been used as fuel. He submits other facts to show that the exhaustion of the Baku region is a dream, and that we shall have to look to that region for our supplies when the Pennsylvanian springs have dried up. It needs not Professor Mendeleeff's figures to foreshadow the latter, for year by year America has been yielding less oil. The official returns show that, and Professor Mendeleeff asserts that when the time comes the Caucasian district will meet the deficiency. So far, the borings are only of a surface character, or about a third the depth of those in America; and everything goes to show that deeper borings will immensely increase the output, and as borings are multiplied, so will the output be. Owing to the present means of boring, and the knowledge people have acquired of this business in the Caucasus, and thanks to the Baku supply, we are assured that the average price of naphtha on the spot in the whole Caucasian district will be always one-half or one-third cheaper than American prices. As stated at the beginning, the rumours of Caucasian exhaustion and the rise in prices went together; the immediate result has been an increase in the borings in America and a greater storage of oil. Conversely, therefore, lower prices ought to prevail next season.

COMMENTARY.

"HAPPY now he's got it," was the neat heading which the *Star* gave to its report of the Barratt dinner last week. *Punch* almost beats this by coining the heading, "Nothing like latter," for its notice of the "Pears' Scentenary."

"EMERITUS" writes to the *Times* to urge that in such cases as that of Mrs. Maybrick, in order to prevent the vagaries of expert evidence, the German system should be followed. "The simple question whether it is due to poison or natural causes is submitted to medical officials of eminence appointed by the State, whose decision is final, and they give their certificate accordingly. Should they certify that death was due to poison, the certificate disposes of all

medical and scientific controversy, and the trial then proceeds in the ordinary way." The argument seems to be that as expert evidence is so contradictory and unreliable, it should be entrusted with an authority from which there would be no appeal! We miss the logic.

EDITORS have a hard time of it anyhow, but to be editor for an association, every member of which thinks he has a right to direct the policy of his journal, must be a position to be endured, not to be enjoyed. The editor of the *British Medical Journal* is the happy owner of some ten thousand masters, and, according to the London correspondent of the *Manchester Guardian*, some of these have been holding "a large and influential meeting," and have resolved to resign all connection with the Association unless something happens, but we are not told what they want. At the last annual meeting of the Association the malcontents who had challenged the general management made a show which it would be complimentary to call a minority, and it is hardly fair fighting on their part to call in an anonymous "London correspondent" to give an air of greater importance to their vague complaints than they would have perhaps if they were definitely stated.

THE very complete *exposé* which Mr. J. F. Brown, of Dover, gave in this journal a fortnight ago of the unworkability of Mr. T. P. Blunt's method for assaying ipecacuanha wine has been the death of that method. Mr. Blunt somewhat curtly responded to Mr. Brown's first letter (October 5), further explaining his method by saying:—"My suggestion comes simply to this: to add to a measured portion of the wine, de-alcoholised by evaporation, an excess of Mayer's solution saturated with mercuric iodide; the emetine will remove its equivalent of the latter (*viz.* mercuric iodide—I wish to be quite explicit), and will leave in solution potassium iodide free to make and to dissolve more mercuric iodide on the addition of the centinormal solution of mercuric chloride." But notwithstanding his desire to be explicit, Mr. Blunt failed to tell us where the emetine gets the iodine necessary to form a double iodide along with mercury—the formula being $\text{EmHI}, \text{HgI}_2$. Of course it gets it from the potassium iodide, with which the emetine salt interacts, and Mr. Brown's careful work with pure alkaloids proved that the process is a complete failure. To him alone does the credit belong of making that fact public. We are somewhat astonished, however, to find that Mr. Blunt has, in last week's *Pharmaceutical Journal*, calmly appropriated this to himself. He now says:—

When I sent my paper on the "Assay of Ipecacuanha Wine" to be read at the late Conference I had operated upon the wine only, and certainly the results obtained justified the hope there expressed that the process might prove useful. I have since worked with aqueous solutions of emetine dissolved in a slight excess of acetic acid, and find that under these circumstances little or no re-solution of the mercuric iodide takes place. What may be the cause of the different behaviour of the wine residue and the aqueous solution I am at a loss to conjecture; it must be due to some constituent of the root, as the evaporated residue of sherry wine possesses no property of the kind. I write to prevent disappointment on the part of those who might otherwise investigate the capabilities of the process.

This is not fair to Mr. Brown, whose letter in our issue of November 2 probably suggested the experiment above recorded; and an examiner in chemistry under the Pharmacy Acts ought to manifest as close an acquaintance with the reaction as he might expect from every Major candidate who comes before him.

IF every person who commits suicide would be as careful as Francis Sumnar Rose, a lot of unnecessary trouble would

be saved. In his case it was not found possible to blame even the chemist. He left behind him two boxes addressed to the coroner and jury, and in one of the boxes was found a sheet of foolscap paper, in which the deceased had written a document certifying that he had committed suicide by swallowing an overdose of strong Turkey opium, and that no person in his house, or any other, had had either hand, or act, or part, directly or indirectly, in his destruction. He had lost money on horse-racing, and did not care to return to his friends in Australia. He had chosen opium as the most decent, cleanest, and quickest style he knew of to destroy life. He had swallowed the contents of this box, containing 370 opium pellets, minus 35, which he left as samples for the convenience of the coroner and jury in finding a verdict, and he was well aware that what he took was far more than doubly sufficient to cause death. And the jury found that this very methodical suicidist was insane!

Truth is indignant with the Board of Inland Revenue for prosecuting the keeper of a licensed beerhouse for selling a stuff called gingerette, which contained alcohol, and he had not a "sweets" licence. The defendant stated that he did not know the article was fermented. But in spite of his innocent ignorance he was convicted. In the same manner, says the virtuous *Truth*, "A penny box of pills has been bought of a small shopkeeper, and the shopkeeper summoned for selling patent medicines without licence or stamp-duty. This sort of thing may appear very smart, and be very good fun to the authorities at Somerset House, and I have no doubt that Mr. Goschen heartily approves of it; but, to my thinking, it is simply using the protection of the revenue as a pretext for an intolerable system of official blackmailing." The editor of *Truth* is a legislator, and ought not to fall foul of laws unless he is prepared to end them or mend them. Does he object to the licensing system? If so, why not say so definitely. If not, what is there wrong in enforcing it? If people "who did not know it was fermented" may sell alcoholic liquors, and small shopkeepers may deal in patent medicines without licences, on what ground can more educated or more flourishing persons be required to pay for them?

Personalities.

MR. BRAMALD, of the Oakfield Pharmacy, Clifton, has disposed of his branch establishment in Stapleton Road, Bristol, to his manager, Mr. J. E. Moore.

MR. W. BATHE, of 10 Abbey Road, Torquay, has opened a new and attractive corner pharmacy at 24 Fleet Street, Torquay. Mr. Bathe will carry on both businesses.

AMONGST the gentlemen successful in recent elections we notice the name of Mr. James Crisp, chemist, who came in first of the councillors for the ancient burgh of Pittenweem, in the East Neuk of Fife.

MR. TOCHER, chemist, Coldstream, is retiring from business, and it is probable that his establishment will be closed with his retirement.

MR. JONATHAN PHILLIPS, chemist and druggist, has been re-elected on the Wigan town council.

MR. FRANK NEWBURY, of the Mount Radford Pharmacy, Exeter, has disposed of his retail business to a Mr. Webber. Mr. Newbury intends to confine his attention to the manufacture of certain specialities.

MR. GWILYM EVANS, Llanelly, has been unanimously re-elected vice-president of the Carmarthenshire county council.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

A NEW SCIENTIFIC WEEKLY, it is said, is to make its appearance next January, with M. Louis Olivier, a Doctor of Natural Sciences, as editor and publisher. The expected title is *Le Progrès Scientifique*.

HÔPITAL RICORD will henceforth be the name of the old Midi Hospital. Such is the decision of the Assistance Publique managers. They ought to renovate the buildings as well as the name.

A PHARMACIST'S WIFE MAY NOT DISPENSE.—The Paris court has just decided that a pharmacist's wife who, during her husband's repeated and frequent absence, manages the *officine* and dispenses medicines, is guilty of illegal practice of pharmacy.

THE MILITARY HEALTH SCHOOL.—The Lyons city fathers, after some grumbling at the increased estimates for the contemplated school buildings, have finally concluded that a thing worth doing is worth doing well, and have voted the extra 500,000f. required to erect a college worthy of their city.

AT THE DISTRIBUTION OF PRIZES on Saturday, November 9, at the Paris College of Pharmacy, MM. Romanet took the Menier prize (600f.); Graziani, the Desportes prize (700f.); Richard and Charpentier, the Buignet prizes (600f. and 400f.); Macquaire, the Laroze prize (500f.); and Monfret, the Laillet prize (500f.). The Goblet biennial (2,000f.) was equally divided between MM. Barnouvin, Bocquillon, and Gautrelet, pharmacists of the first class, and Girard, preparator at the Nancy College of Pharmacy. The Lebeault prize (500f.) was not awarded. All the foregoing are prizes founded by bequests. Eight silver and two bronze medals, with books, and ten honourable mentions were also awarded by the Faculty. One gold medal and several silver medals remained unwon.

LAST DAYS OF THE EXHIBITION.—Contrary to all provision the attendance kept increasing to the end, while tickets maintained their prices to the last. As the end drew near crowds grew tremendous, in all sorts of weather, and the last day, November 6, being clear and pleasant, attracted numbers estimated at between four and five hundred thousand. The exact figures will, probably, never be known, as after dark the crowd became unmanageable, and broke down the fence near a corner, whereby many ran out to escape, while others walked in gratis. At dusk two crowds met near the north-eastern corner of the Champ-de-Mars, and there created such a crush that women cried and fainted, and a sort of panic ensued. There were rumours of accidents; but in all about a dozen persons were brought to the medical stations, where they soon recovered, and as many children got lost, but were claimed again. The wiser ones left the grounds at the first chance, leaving others to be jostled and crushed while looking at the illuminations. These, by the way, are conceded to have been all that was promised on the programme. Workmen must have been set to work as soon as the tower gun announced the end of the show, for the next morning the Exposition was a wreck of its former self. The first sign of departed glory was the absence of smoke from the tall chimneys lining the Avenue de Lamotte-Piquet. Only the Duvals had a tiny curl modestly oozing out, for there is yet quite a population to be fed. Inside the scene is one of desolation. Under the red paper lanterns left hanging from the previous night's illuminations scores of huge moving waggons were loading up boxes and show-cases, while men were packing up goods, tearing down kiosks and booths, ripping up floor oil-cloths, and demolishing things generally. In the American sections exhibitors were, in their characteristic nervous manner, hurrying so that it was easy to see they would soon be ready to go—indeed, in the Liberal Arts Gallery the preparations were on Friday so far forward that the Commissioner, Professor Parke, expected to sail next day. In the British sections they were at work in systematic and deliberate fashion. If they were among the first to be ready for the opening, they will not be among the last to depart. The Italians were keeping open

and selling as long as they dared. They have reaped a rich harvest. Of some of their statuettes they have sold several hundred duplicates, and disposed of an incredible amount of trash. All day Thursday they kept at it, and it was only on Friday that peremptory orders came from headquarters to cease all traffic, two Italian soldiers being put on guard to keep dealers in and buyers out. There was at one time a comical scene between the trio of parties. Would-be purchasers were on one side begging the Italic warriors to let them in just one minute, while on the other side the Italian *mercanti* were expostulating with their countrymen and gesticulating most eloquently. But all in vain; military discipline won in the triangular fight, and exhibitors had to pack up in earnest.

Further below, the grounds showed traces of the last night's overcrowding, in the shape of downtrodden grass and flowers and upset barriers. There had been no wanton destruction, but merely the inevitable wear and tear of an overflowing multitude. The Eiffel Tower looked desolate; no long lines of ascensionists waiting for admittance, but a stray customer here and there. The Decauville railway had run its last train. On the station gates a notice was posted, thanking for their patronage the six million passengers which the enterprise had carried.

Another circumstance deserving notice is that, the Fair over, English has again become the prevalent language about the grounds and buildings. For some weeks previous it had been superseded by unfamiliar tongues and French *patois*. On the riverside the work of pulling down was going on at the same rate, and some of the pre-historic dwellings—rude affairs, by the way—had almost disappeared.

A rather touching incident took place near the Esplanade, at the British dairy. The fine English cows composing the important part of the establishment having been sold, farm hands came to remove them. As the cows were being led off the English dairymaid began to sob and kiss and pet them, saying she had had the care of them for six months, and the kind creatures never gave any trouble. It almost broke her heart to part from them. Some tender-hearted ladies felt like crying, too, when the ungrateful kine, on smelling the fresh air after being so long confined to business, broke loose and ran away, capering and bellowing. The tears ended in a smile. The Cairo street donkey-boys were less sentimental. After selling all their asses for as much as they could get—300f. on an average—they sailed home delighted with the fun they had had and the money they had made out of the Franghese. Judging from what has been done at the War Office pavilion, the Esplanade will be clear in a few days. Never was the saying that "it is quicker to destroy than to build up" better illustrated. And another proverb, applicable to many in Class 45—pharmaceuticals and chemicals—is "in last, out first."

The following buildings are to be preserved:—Machinery hall, the central dome and gallery, the liberal arts and beaux-arts galleries, and, of course, the Eiffel Tower. A public garden is to be made in the grounds, and the Military School is to receive in place a large plot near Issy for cavalry drills. The luminous fountains are to be transferred to some central location, and the apparatus purchased from the English company operating them so far.

To end the Exposition's obituary with a few interesting statistics, it may be added that the total number of paid admittances was 25,398,609, while the gratuitous admissions are estimated at 4,000,000 more. As at certain hours and on some occasions more than one ticket was required, it is probable that but few of the 30,000,000 tickets issued and paid for remain unused. They are still quoted at 2d. on the Bourse, although they are of no earthly use now, except for collections. The following were in round numbers the admissions to previous exhibitions:—Paris, 1878, 12,500,000; Philadelphia, 1876, 10,000,000; Paris, 1867, 9,000,000; Vienna, 1873, 7,000,000; London, 1851, 6,000,000; and Paris, 1855, 4,500,000.

The Eiffel Tower's receipts up to and including November 5 were 6,500,000f. The shareholders have been reimbursed in full, 500f., and the shares are still worth over 400f., in view of further dividends, more or less problematical, while the privilege holds good. A profitable investment, no doubt; and so was the tiny and fussy little Decauville railway, but of this the exact figures have not been published.

RAILWAY RATES.

A MANAGER ON THE CLASSIFICATION.

At the inquiry held by Lord Balfour of Burleigh, Parliamentary Secretary to the Board of Trade, and Mr. Courtenay Boyle, C.B., Assistant Secretary (Railway Department), under the Railway and Canal Traffic Act of 1888 respecting railway rates for goods traffic, on Tuesday,

Mr. George Findlay, General Manager of the London and North-Western Railway, gave the following interesting evidence in the course of cross-examination by Mr. Balfour Brown, Q.C., on behalf of the traders generally. The witness stated that although, under the Companies Act of 1846, only 62 articles of commerce were classified, the number had since been enormously extended, until it had now reached in the Railway Clearing-house classification more than 4,000. In the new maximum classification now proposed by the associated railway companies only 1,143 articles appeared. As a matter of fact, all articles that were not directly classified were entitled to be rated in accordance with the highest classification. There were ambiguous phrases in the old Acts, such as "manufactured articles," and "articles of merchandise," which left a doubt as to which classes particular articles ought to be included in, and it was desirable, both in the interests of the traders and of the railway companies, that in future the classification should be rendered as perfect as possible.

Mr. Balfour Browne asked what harm would be done in classifying different descriptions of oils, such as colza, palm, &c., instead of including them under the one head of "Oils."

Mr. Findlay said he would take the converse. What harm was done by including the different descriptions under the same head? The classification of the railway companies was not nearly as extensive as the Clearing-house classification, but the companies had been gaining experience year by year, and had arrived at the conclusion that a voluminous classification was altogether unnecessary. They were certainly of opinion that it was not suitable, in details at least, for a Parliamentary classification. The traders were not parties to the Clearing-house classification, but he presumed that it had been found for the advantage of the traders and the convenience of the railway companies that articles should be added from time to time, until the number now reached more than 4,000. If necessary, he would go through all the articles one by one, and give reasons why it was better to exclude them from a separate classification. Some articles were enumerated three or four times over under different conditions in regard to carriage. In the majority of cases the London and North-Western Company did not charge the maximum rate they had power to charge. For instance, in the case of chemicals, they had power to charge 4*d.* or 5*d.* per ton per mile, whereas, as a matter of fact, they only charged 1*d.* per ton. So far as they had a margin of profit the company were content with imposing a low rate. No rate that would stop the traffic would be of any use to the railway companies. Nevertheless in no case that he was aware of had the lowering of rates led to a differentiation in the classification.

Lord Balfour of Burleigh pointed out that the case of chemicals which had been mentioned afforded proof that, when particular articles were charged at a less rate than a railway company was empowered to charge, the article in question was placed practically in a lower classification.

WOOD-GUM can be obtained from beech-wood, and also, but in smaller quantities, from deal, by extracting the wood with 5 per cent. soda, and precipitating the solution with alcohol and hydrochloric acid. When the wood-gum from either source is hydrolysed it yields Koch's wood-sugar, or xylose, which closely resembles arabinose in all its properties. Xylose can also be obtained by the direct hydrolysis of jute. Xylose and arabinose, and all substances from which they can be obtained, give the cherry-red coloration of arabin when warmed with phloroglucinol and hydrochloric acid. This reaction can be employed for the detection of xylose and arabinose.

Trade Notes.

Mr. W. MATHER announces by advertisement this week that he is prepared to supply certain quantities of his plasters with the name of the retailer printed upon them.

A NEW malt extract is put on the market by the Pure Malt Extract Company, of Camberwell, and Mansion House Chambers, 20 Bucklersbury. It is put up in good style, is excellent in appearance and flavour, and is offered at a very moderate price.

CHEMISTS and chemists' assistants who would like a good vest-pocket diary should ask Burroughs, Wellcome & Co. for a sample of their A B C ones. They contain fifty-two diary pages, and the backs of the pages are utilised as an alphabetical index for addresses and memoranda. The firm supply for cost price a neat leather wallet to hold the diary. This has pockets for cards, stamps, &c.

WE have received from Messrs. Cäsar & Loretz, of Halle o/S, Germany, a copy of the half-yearly report on the drug market, which they, following the example of other German houses, have lately commenced to issue. The book contains a valuable review of the position of the drug and chemical markets, and the firm appear to be especially well-posted in the numerous medicinal herbs, roots, and flowers which are collected so largely in the mountainous districts of Germany.

ANGINA PECTORIS REMEDIES.—Messrs. Burroughs, Wellcome & Co. submit to us samples of their various preparations of nitroglycerine and amyl nitrite, which are specially useful at this season in the treatment of asthma, angina pectoris, and kindred complaints. Three of the preparations are in tabloid form, and one of these, "trinitrine comp.," is an excellent compound of nitroglycerine, $\frac{1}{100}$ gr.; amyl nitrite, $\frac{1}{4}$ gr.; capsicum and menthol, of each $\frac{1}{50}$ gr. The other forms contain $\frac{1}{100}$ gr. of nitroglycerine. We may observe that the name "trinitrine" is a synonym for nitroglycerine, and is intended to relieve patients of any idea that the medicine which they are taking is of an explosive character. One distinctive feature about these preparations is their compactness; about their efficacy therapeutists have little doubt, but it is essential that those who are afflicted with the alarming complaints for which they are used should carry the remedies about with them, and it is in this respect that the advantageous character of the tabloids asserts itself. The fourth remedy consists of amyl nitrite vaporoles, which we have had occasion to refer to recently. We notice that all the articles are put up in such a way that in dispensing them the original labels may be washed off and a dispensing label attached with directions according to the prescription.

AMMONIATED PERFUMES.—Messrs. Osborne, Bauer & Cheeseman have introduced a novelty into perfumery which will probably be popular. In glass-stoppered bottles of a peculiar shape, as shown in the engraving, a quantity of the finest bicarbonate of ammonia in little lumps is introduced, and the bottles are filled with any of the usual popular scents. The result is a combination of a pungent with a handkerchief perfume. For the first purpose the bottle is always just as effective as if it contained ammonia alone; the only difference being the slight addition of the agreeable odour indicated. But what is curious is that the addition of the ammonia does not seem to affect in the least degree even the most delicate of perfumes. When poured from the bottle the ammonia pungency evaporates almost instantly, and in a few instants cannot be detected. The perfumes are got up to sell retail at 2*s.* 6*d.* per bottle.



($\frac{1}{2}$ SIZE)

The engraving is half the size of the bottle.

THE SANITARY WOOD WOOL COMPANY (LIMITED), manufacturers of Hartmann's patent wood-wool preparations, have just paid a dividend of 6 per cent. on their preference shares, and 4 per cent. on their ordinary shares.

AUSTRALASIAN NEWS.

IN Hobart a chemists' assistants' association has been formed upon similar lines to those in existence in England.

ESSENTIAL OIL DISTILLATION.—Dr. T. L. Bamcroft, of Brisbane, has tried the distillation of native essential oils on a small commercial scale, and finds that it is not profitable.

THE Launceston (Tasmania) U.F.S. dispensary has issued a notification to the effect that it has been decided to discontinue selling to the public.

THE October issue of THE CHEMIST AND DRUGGIST OF AUSTRALASIA, to hand this week, contains a considerable amount of useful information to those on this side who are interested in or have business relations with the Australasian colonies.

FROM New Zealand we learn that the election of members of the new Pharmacy Board took place on August 29. The headquarters of the board for the next three years will be at Dunedin.

INTERCOLONIAL PHARMACEUTICAL RECIPROCITY continues to occupy much attention in several of the colonies; in New South Wales it appears to be the burning question of the day, but many difficulties are in the way of a speedy solution of the problem.

THE PATENT MEDICINE TRADE.—Some proprietary medicine makers (Warner & Co., for instance) have found it worth while to manufacture their goods in the colonies, and thus save the 25 per cent. duty in South Australia and Victoria, and less amounts elsewhere.

CHEMISTS AND JURY SERVICE.—Recently at the Supreme Court, Blenheim, New Zealand, Mr. Thomas H. Hustwick, chemist, applied for exemption from service on the jury. He urged in face of the fact that (unlike in England) chemists in New Zealand are not entitled to such exemption that he should be excused, as only an apprentice was in charge of the shop. After consideration his Honour ruled that Mr. Hustwick could not be excused, adding that if chemists were to be exempted from service it would have to be done so by law.

LIBEL ACTION.—At Melbourne on October 1, a case was tried in the first Nisi Prius Court, before Mr. Justice Holroyd and a special jury of six, in which Mr. Kendall, a veterinary professor, sought to recover 5,000*l.* damages from A. H. Massma & Co., printers and publishers, and from H. W. Shillinglaw, editor, of the *Australasian Journal of Pharmacy*. The plaintiff, a veterinary surgeon, and member of the Veterinary Board, had established a college or teaching institution in Fitzroy, with the object of providing the necessary instruction under the Veterinary Act of Victoria. The alleged libel was an article published in the defendant's journal, in which the plaintiff's prospectus was commented on. Professor A. H. Jackson, who was named in the prospectus as the lecturer on chemistry, was (the article said) precluded from filling such a position by the terms of his engagement with the College of Pharmacy, and the writer said he had authority for stating that Professor Jackson had not given permission for the use of his name in the prospectus. Another professor named was, it was added, in Siam; another was described as Dr., when he was actually L.R.C.P. Mr. Kendall's College was referred to as suburban stables, and the article averred that certain statements in the prospectus might be taken to mean that the college was recognised by the Board, which was not the fact. For the plaintiff it was testified that the college was fully equipped, that the professors named had been duly engaged, and that Professor Jackson, although he was not allowed to lecture till the term of his engagement with the College of Pharmacy had expired, was lecturing now; that one of the professors (but not the one named) had gone to Siam temporarily; and that the College was soon afterwards recognised by the Veterinary Board. This recognition had been subsequently withdrawn, in consequence, it was believed, of the article complained of. And it was suggested that the motive of the article was that the students of the College, who formerly went to the College of Pharmacy for their chemistry course, had been withdrawn. The defendants admitted the error as to the professor who had gone to

Siam, and paid 40*s.* into court as sufficient damage. The other statements, they maintained, were correct in fact, and written without malice in the interests of the public, and were fair comment. The jury returned a verdict for 416*l.*, with costs.

VICTORIAN TARIFF ALTERATIONS.—The revised tariff Bill was passed in October, and by it all medicines are to pay a duty of 25 per cent. *ad valorem*. Medicines are defined as consisting of two or more ingredients mixed ready for use, not being in chemical combination; drugs and chemicals, packed ready for retail sale or consumption, including medical compounds, containing spirits not exceeding the strength of proof by Sykes's hydrometer; and all preparations recommended as beneficial for any portion of the human or animal body or the cure or the treatment of any disease or affection whatever; and medicine chests or cases, with or without fittings. Patent and proprietary medicines as such disappear from the tariff. Brushware is raised from 25 to 35 per cent. *ad valorem*; chinaware and porcelain (except photographic and telegraphic materials) changed from 2*s.* 6*d.* per cubic foot to 15 per cent. *ad val.*; earthenware, including packing (except the above materials), altered to 8*d.* per cubic foot, measuring outside the package as imported, instead of 1*s.* 4*d.* per cubic foot measured after the goods had been unpacked and stacked, and all breakages thrown out; bent and bevelled glass, instead of 1*s.* per cubic foot, is now 20 per cent. *ad val.*; all bottles, including medicine bottles, are to be 6*d.* per cubic foot, measured outside the package, not the solid measurement of the bottles themselves; the duties on oils in bottles are doubled (4*s.* per dozen quarts and so on), and a new line has been introduced imposing 12*s.* per dozen on bottles of oil containing more than a quart but less than a gallon; advertising matter of all kinds, from the humble handbill to "Bubbles," will now have to pay a duty of 4*d.* per lb.; perfumery is raised from 10 to 20 per cent.; the duty on paper and cardboard boxes is now revised so as to cover paper or cardboard (with or without printing) cut into shapes for wrapping or boxing, and still stands at 25 per cent. Acetic acid, formerly 3*d.* per pint or lb., is now charged at that rate when containing not more than 30 per cent. of "acidity," and for every extra 10 per cent., or part of 10 per cent., above 30 per cent., 1*d.* per pint or lb. Chlorodyne is classed as a drug at 25 per cent. *ad val.* Cocculus indicus is raised from 1*s.* 6*d.* per cwt. to 1*s.* per lb.; nux vomica from 1*s.* 6*d.* per cwt. to 2*d.* per lb., but with no corresponding increase on strychnine. Liquid glue, liquid gum, and cements are made 20 per cent. *ad val.*; gold and silver leaf, 20 per cent.; inks, writing liquid or powder, 10 per cent.; leather (including split skins, &c.), 6*d.* per lb.; extracts of or concentrated meat, 20 per cent.; preserved milk, 2*d.* per pint or lb.

Duties have been removed from carbolic, oxalic, and picric acids, aloes, cannabis indica, faba amara, grains of paradise, quassia, iodide and bromide of potassium, and syphon bottles, which are now free.

The interpretation of the new provisions is likely to give much trouble. For instance, it is asked, is quinine in 1-oz. $\frac{1}{2}$ -oz. or $\frac{1}{4}$ -oz. bottles a chemical "packed ready for retail sale or consumption"? How about camphor in tablets, drugs in talboids or in capsules but sold in bulk? Mr. Blackett, the city analyst, who is regarded as a special authority on the Act, was consulted as to some English coated pills. He said B.P. pills were to be regarded as "drugs," and were free, but others were dutiable. If this opinion is a sound one it is to be feared that the letters B.P. will be in demand to a rather more than justifiable extent.

CELLULOID SOMETIMES EXPLODES OR BURNS; so a member of the American Association of Science has made a number of experiments on the transparent and opaque varieties of celluloid, and they show that the opaque variety is insensitive to shock of detonation at ordinary temperatures. The translucent variety readily explodes by these means.

CHARLOTTETOWN, P.E.I.—Mr. A. S. Johnson, Ph.G., has opened a handsome new drug store at the corner of Prince and Kent Streets, Charlottetown, P.E.I. The store is very handsomely fitted, is heated by hot water, and lighted by electricity. Mr. Johnson is a graduate of the Philadelphia College of Pharmacy, but he obtained most of his pharmaceutical experience in Charlottetown.

Trade Report.

Notice to Retail Buyers.—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., November 14.

THE present week has not been a very eventful one so far as regards our markets, and the changes in the positions of drugs and chemicals generally are not so numerous as they were in the week before. The drug sales held to-day were small and extremely uninteresting, and they passed off with the slightest possible animation. In the private market there is some excitement about the advance in citric and tartaric acids and cream of tartar, though camphor has, perhaps, attracted more general attention than any other drug, the crude article having reached the exceptional figure of 7*l.* per cwt. Cocaine, borax, quicksilver, and sulphate of copper have also improved, but quinine is again somewhat unsteady, and chlorate of potash is selling at the lower rates. In drugs there have been advances in areca nuts, Sumatra benzoin, and the better grades of cardamoms and Tinnevely senna. Rhubarb, ipecacuanha, and beeswax are selling at full prices, but musk is just a little easier. Cape and Curaçao aloes are dull and depressed; China cantharides, gentian root, and ergot not so well held; gum myrrh, matico, Calcutta castor-oil, saffron, ordinary cardamoms, and gamboge, cheaper. In drysalteries we have to record higher prices for shellac and China galls, but lower rates for soda crystals, gambier, and most spices, especially mace, nutmegs, black and white pepper, pimento, and Zanzibar cloves.

THE NEW SHOW-ROOMS IN CRUTCHED FRIARS WAREHOUSES.—The whole of the drugs formerly shown at Fenchurch Street Warehouse have now been removed to Crutched Friars. Rhubarb and musk have already been on show there for the last two auctions, but on Wednesday the trade went for the first time to inspect the other drugs in their new quarters. As regards the rhubarb and musk rooms there is not much to choose between the new and the old warehouse, the light in both places being about equally good. But the new drug show-room, which is situated on the fourth floor of the Crutched Friars warehouse, and reached by means of a lift running along the outside wall of the building, is decidedly inferior for the purposes of inspection to the old one in Fenchurch Street, the light being by no means brilliant except in the centre of the room. There was a good deal of grumbling among the brokers whose goods had not been given the advantage of this central position, and altogether the trade does not seem very satisfied with the alteration.

THE hydrochloric acid manufacturers of Widnes, Runcorn, and Birmingham have been holding a series of weekly meetings in Liverpool lately, with the object of maintaining the present high price for next year's contracts. They also considered a proposal to "pool" the whole production of the associated works, but the anticipation that other firms who have not been in the association will be sellers of acid next year has prevented its adoption. The last meeting on October 30 authorised the members to sell at their own price, when, where, and as they liked, in the meantime. Some contracts were immediately made at 8*d.* per carboy, then at 7*d.* for considerable quantities, and more was offered at this price from Widnes than could be sold. Now, 6*d.* per carboy is spoken of as the price for next year, though the combination quotation remains 10*d.* This price has been too high in comparison to the price of bleach, and it has undoubtedly reduced the consumption of hydrochloric acid. Vitriol has been far cheaper for a variety of purposes, and has been largely used in preference. By increasing the consumption of hydrochloric acid by selling it at a reasonable price, there will be the less necessity to make much more

bleach next year than has been made this year. The price of bleach could be maintained by a moderate increase in the make, but it will not yet bear an increase equal to the nominal capacity of the works.

ACID (CITRIC) is fully $\frac{1}{2}$ *d.* per lb. dearer, it being doubtful whether 1*s.* 4*d.* per lb. would still buy on the spot, and for forward delivery 1*s.* 4 $\frac{1}{2}$ *d.* is asked, while sellers are not eager to part at that figure. Lemon-juice reported dearer from Sicily, at 16*l.* 10*s.* f.o.b.

ACID (TARTARIC).—There has been quite an unusual briskness in this article this week, and for English make 1*s.* 4*d.* per lb. is now required, while foreign makers quote 1*s.* 3 $\frac{1}{2}$ *d.*, and are asking from 1*s.* 4*d.* to 1*s.* 4 $\frac{1}{2}$ *d.* per lb. for forward delivery, according to brand and position. We hear of business at 1*s.* 3 $\frac{1}{2}$ *d.* "c.i.f." terms for December-January, and the reports from Italy regarding the position of tartar materials generally are very strong. On the other hand, another correspondent writes from Messina that the movement is entirely of a speculative character, and would collapse if buyers agreed to stand off for a little while.

ALOES.—The Cape steamers which have come in since our last report have again failed to bring us any supply. On the other hand, there is a general belief that the stock held by second-hand holders must be pretty considerable, and buyers did not seem anxious to secure the second-hand lots offered to-day. For a lot of fairly good bright hard 25*s.* 6*d.* would be submitted, which looks like an easier feeling. Twenty-five cases livery Natal aloes were shown, and are held at 50*s.* for fine bright (49*s.* being refused), while for dull and stoney 37*s.* was accepted. Of 345 packages Curaçao, 273 were forced off, partly upon unwilling buyers, at very cheap rates. Fair brown liver, ordinary to fair bright Capey, 19*s.* to 23*s.* 6*d.*; common drossy and overheated, 8*s.* to 9*s.* per cwt. Of so-called Barbadoes aloes 23 gourds good bold bright liver sold at 47*s.* 6*d.*; fair Capey at 25*s.* per cwt. Of East Indian Socotrine 15 boxes fair red, good flavour, sold at 51*s.* 5*s.* per cwt.

AMBERGRIS.—Only one tin of good-flavoured grey ambergris was offered, and is held at the exorbitant price of 150*s.* per ounce.

ANISE.—The stocks appear to be getting somewhat limited, and the demand remains rather good, especially for *Spanish* and *Malta* seed; of the former a small parcel of good pale sold at 34*s.* per cwt. to-day. *Russian* anise steady at 19*s.* to 20*s.* per cwt. for good quality. For 20 bags ordinary darkish seed, 17*s.* was refused to-day. Of *Star-anise* there has been nothing offering on the Chinese markets for several weeks, and in London genuine star-anise is very scarce. For 8 cases nondescript, of scarcely any flavour, and largely mixed with Japanese seed, 22*s.* per cwt. was refused.

ANTIMONY dearer, at 72*l.* for regulus. Some holders ask 74*l.*

ARECA NUTS.—Eighteen bags were offered, and 23*s.* was asked for them, which is nearly 50 per cent. more than the last sale price. We understand that they have since been sold.

BALSAMS.—Very little of any interest to report in this market. For good *Peruvian* balsam 4*s.* 9*d.* per lb. would probably be accepted. Of *Copaiba* a parcel of good pale bright Maranhham was shown to-day, and nominally bought in at 2*s.* 8*d.* per lb. *Wood-oil* bought in at 4 $\frac{1}{2}$ *d.* per lb.

BLEACHING-POWDER.—London still quotes 7*s.* 9*d.* ex warehouse. Tyne quotations come rather easier at 6*s.* 4 $\frac{1}{2}$ *d.* to 6*s.* 9*d.* per cwt.

BORAX.—There has been a decidedly better demand for refined borax since our last report, and from the second hand there is little, if any, to be had under 29*s.* per cwt. now. *Boracic acid* also higher, at 23*s.* 6*d.* per cwt. on the spot.

BROMIDE, and all bromides unchanged.—*Bromide of Potassium*, from 1*s.* 5 $\frac{1}{2}$ *d.* to 1*s.* 6 $\frac{1}{2}$ *d.*, according to quantity.

BUCHU.—One bale of long narrow leaves, discoloured-stalky, and without flavour, sold at 4*d.* per lb.

CALABAR BEANS.—A small bag sold cheaply at 7 $\frac{1}{2}$ *d.*

CALUMBA.—Prices are quite irregular. An offer of 10*s.*

was refused for 27 bags, mixed size, fair, partly yellow colour; and another lot of 60 bags of sound root, fair colour, was bought in at 15s.

CAMPHOR (CRUDE).—On the spot about 300 tubs Japan camphor are reported to have been sold at 125s., and subsequently at 130s. per cwt., while the holders now will not entertain anything under 140s. per cwt. For forward delivery nothing is offering. Some shipments are known to be on the way, but they are said to have all been sold afloat. A cable from Hong Kong yesterday reports, "Japan camphor scarce."

CAMPHOR (REFINED).—The *English* refiners still quote at the same rates as last week, viz., 1s. 6d. per lb. for bells, but they are by no means anxious to make contracts, and it is quite possible that before the week is over they may decide to raise the price again. As regards the German refiners, they decline to make any contracts at all. We heard of some sales at 1s. 4d. per lb. a few days ago, but it is certain that that price would not now be accepted. It is said that one of the foreign agents is still a seller at 1s. 5d. per lb., but we doubt whether he would care to accept an order.

CANTHARIDES.—*Russian* unchanged; *China* will be bought very cheaply again. For 11 cases 9½d. was refused, 10d. being the lowest price. For three cases of copper-coloured *Hungarian* 3s. 10d. was refused; 4s. would probably buy.

CARDAMOMS.—Only about 150 packages were offered to-day, and about one-third of this supply sold at exceedingly irregular rates, the better grades generally a little dearer, but medium and ordinary cardamoms at lower rates. *Ceylon-Malabar*, medium to bold fairly good pale long, 1s. 11d.; *Ceylon-Mysore*, fine medium to bold smooth yellow, 2s. 6d.; good medium to bold long pale, 2s. 2d.; good heavy medium pale, 1s. 11d. to 2s.; small or brown ditto, 1s. 6d. to 1s. 5d.; pale small to medium, partly split, 1s. 2d.; brown, partly split, 1s. to 1½d.; fair unclipped brown pickings, 11d. *Seeds* dearer at 1s. 7d. per lb.

CASCARA SAGRADA.—No change can be reported, the price being nominal at 75s. "c.i.f." terms. At auction 11 bales partly thick bark were offered, for which there was no bid at 65s.

CASCARILLA.—Eleven bales small brown, partly silvery, sold at 27s. per cwt., and another lot was reported privately sold.

CHAMOMILES quiet and without alteration.

CINCHONA.—A very poor supply of South American druggists' barks was shown to-day, and calls for no comment. We understand that during the week from 1,200 to 1,300 bales of old *Cuprea* bark have been sold for American account at 4d. to 6d. per lb. Up to the present time 2,793 packages have been declared for sale next Tuesday, comprising 947 bales Ceylon, 237 bales East Indian, 60 bales Java, and 549 packages South American. Our imports since last report have been 1,279 packages from all quarters. The following are the exports from Ceylon in the month of October:—1889, 724,000 lbs.; 1888, 1,135,620 lbs.; 1887, 752,700 lbs.; 1886, 1,068,180 lbs. We hear from Amsterdam that the equivalents of sulphate of quinine purchased by the principal buyers at last Thursday's auctions are as follows:—C. L. Schepp & Zoon, Rotterdam, 1,543 kilos.; Amsterdam and Mannheim factories, 1,391 kilos.; Brunswick factory, 1,228 kilos.; Auerbach ditto, 1,127 kilos.; Frankfort and Stuttgart works, 772 kilos.; druggists, 557 kilos.

COCAINE.—It is now said that, owing to the undoubted failure of the coca season in South America, some makers have raised their price for the hydrochlorate 1s. per oz., but we find that there is quite as much divergence in the quotations as last week.

COLOCYNTH.—No change in price can be reported. At auction 8 cases fair *Turkey* were bought in, and 7 cases *Cyprus*, small and somewhat brown peeled apple, also held at 1s. 5d. for the best, and 1s. 3d. for more seedy.

CONDURANGO.—10d. per lb. is asked for 21 bales very woody bark.

COPPER (SULPHATE).—Prices fully maintained, and even slightly firmer at 24d. and 24½. 10s. on the spot. For December there are sellers at 23½., and buyers at 22½. 10s.

COTO BARK.—A lot of very dark and dull genuine coto bark bought in at 1s. 3d. There was no answer to 1s.

CREAM OF TARTAR again somewhat dearer, and best white French *Crystals* are now quoted at 101s. and 102s.

CUBEBS.—Genuine cubebs remain very scarce, but of mixed quantities more is offering. Sixteen bags, dusty, stalky, and spurious mixed, are offering at 22½. 10s., and another lot of brown bold berries without stalk may probably be had at the same price.

CUMIN SEED remains very dull of sale, and prices range from 25s. 6d. to 26s. for good-flavoured bright *Malta* seed. Dark and damaged seed sold at 20s. to 21s. per cwt. to-day.

DRAGON'S BLOOD.—At auction 7 cases bold finger in red, part drossy and dull coloured, bought in at 6d. An inferior lot also bought in at 5d.

ERGOT OF RYE does not seem so firm as reported last week. Quotations are nominally 1s. 6d. for *Spanish*, and 1s. 3d. for *Russian*. At auction 1s. 4d. was refused for good *Spanish*, and 1s. 3d. accepted for a rather dirty mixed lot. Three bags, all worm-eaten, sold without reserve at 10½d.

GALLS.—On the spot 70s. per cwt. has been paid for *China* galls, which is the same price as last week, but for arrival an advance can again be recorded, usual shape and plum-shaped galls having both sold at 65s. to 66s. c.i.f. terms, for November-December shipment. All this business is said to be quite speculative. White *Turkey* galls have been influenced to some degree by the position of the *China* galls, and sales are reported at 45s. per cwt. on the spot.

GAMBIER.—Prices have declined further for arrival, and only a very limited business is reported in the article: September-October at 26s.; November-December, 25s. 6d.; and December-January, 25s. 3d. per cwt. Of 473 bales block, offered at Tuesday's auctions, 100 sold at 27s. per cwt., being equal to the price paid at the previous week's sales, but afterwards lower offers were made, and 26s. 6d. has been accepted.

GAMBOGE.—Twenty-one cases were offered to-day, and mostly bought in at prices which seemed to show that owners would be inclined to accept the reduction. Very broken pipe, fair colour, partly run, sold at 9½. 15s.; ordinary ricey pickings, 9½. 2s. 6d. to 9½. 7s. 6d., sold.

GENTIAN ROOT.—For a lot shown to-day 16s. would be taken, which indicates an easier tendency.

GLYCERINE.—Double-distilled s.g. 1.260 remains quiet at 60s. to 61s. per cwt. for quantities from the makers, though second-hand holders would, perhaps, be able to shade that quotation to some slight degree.

GUM AMMONIACUM.—Nothing was offered at auction to-day, and the article is rather scarce. For the best free pale drop from 40s. to 45s. 6d. per cwt. is required; and for good pale siftings, 20s. to 22s. per cwt.

GUM ARABIC.—Only a few parcels were offered at auction to-day, and mostly bought in; fair *Senegal* at nominal rates, much above the current market value; for fine pale dusty *Cape* siftings 5½. 5s. is asked; and four casks dusty and partly drossy mixed pale *Mogadore* sorts were bought in at 6½. 15s. Fine *Aden* gums are not offering, in spite of several inquiries being in the market. In good pale Trieste grains business is passing at 15½. 10s. to 15½. 15s. per cwt. From Liverpool a much better demand is reported for *Brazilian* gum. From Cairo we hear, under date of October 27, that prices for gums from the Red Sea coast are quite nominal, these varieties having been quite neglected lately, as the holders will not part at the present rates. From the Soudan several small lots of true *Kordofan* and *Gehzirah* gums have just arrived in Cairo, but the holders refuse to part with these even at the parity of the present London and Trieste prices.

GUM BENJAMIN.—A very good assortment of *Sumatra* gum at to-day's auctions was well competed for, and sold at 10s. to 15s. per cwt. above the valuations for the better grades, very fine pale almondy seconds of strong flavour, and but slightly false packed at 8½. 15s. to 9½. ditto somewhat smaller almonds and darker at the ends, 8½. 15s.; very good pale almondy false packed ends, 7½. 15s. to 8½.; fair almondy centres, brown corners, 7½. 5s. to 7½. 10s. per cwt. *Penang* fair almondy centred seconds, rather false packed,

5*l*. 17*s*. 6*d*. to 6*l*. per cwt. *Palembang* ordinary thirds sold at 30*s*. per cwt. Of *Siam* gum the fine parcels shown some time ago appear to have gone into consumption or to be withdrawn from the market altogether. Only three cases were shown to-day and sold well, ordinary grey and dusty loose almonds, 10*l*.; darker ditto, 8*l*. 5*s*.; common woody and blocky, 4*l*. 12*s*. 6*d*.

GUM ELEMI.—A small parcel of 10 cases very fine white gum sold at 40*s*. per cwt. to-day. As a curiosity, we may mention that 10 cases of the so-called elemi resin, which is sometimes imported from South America, were offered to-day. This lot was exceptionally bad, and no one could be found to bid 1*s*. per cwt. for it, though the auctioneer said that it had been invoiced to the importers at the rate of 25*l*. per cwt.

GUM EUPHORBIIUM.—A fairly large supply of 40 serons offered, but all bought in, the prices asked being 22*s*. 6*d*. to 25*s*. for dusty small tears, partly woody.

GUM KINO remains quiet, at 23*s*. to 25*s*. for a good quality.

GUM MYRRH.—The market has been dull and quiet. Aden sorts could be bought prior to the auctions at 82*s*. 6*d*. per cwt. In sale to-day prices gave way further, and about 10 cases were disposed of without reserve at 5*l*. 2*s*. 6*d*. to 5*l*. 5*s*. for rather ordinary picked, 70*s*. for dark sorts, 72*s*. 6*d*. for coarse siftings, 52*s*. 6*d*. for good dust, and 37*s*. 6*d*. for fair pickings.

HONEY.—The demand was somewhat slack at to-day's auctions, but the owners are not at all inclined to give way, and refused 40*s*. per cwt. for fine hard pale *New Zealand*. The same price is asked for a parcel of fair hard *Chilian*, of which 7 kegs rather yellow sold at 38*s*. per cwt.

IODINE.—No change in the combination price of 9*d*. for *Crude*. *Iodides* also unaltered. At auction 2 kegs which have been up before were again offered and put in at 8*d*. Afterwards 8½*d*. was offered, but this the owner refused.

IPECACUANHA.—Of 65 packages shown at to-day's auctions 21 were sold at steady rates, without quotable alteration, and the bulk of the remainder might easily have been disposed of, if the owner had shown any inclination to sell. For good, partly stout, sound root 6*s*. 9*d*. to 6*s*. 11*d*. was paid, one thin lot selling at 6*s*. 8*d*. per lb.; and for more or less damaged and mouldy, 6*s*. 6*d*. to 6*s*. 9*d*. per lb. Fair picked root held at 7*s*. 3*d*. per lb.

KOLA NUTS.—Several packages rather badly-cured seeds, all more or less mouldy, sold to-day at 3*d*. to 4½*d*. per lb.

LIME JUICE neglected. For 5 puncheons (100 gallons each) fairly good West Indian 11*d*. per gallon is asked, while a rather dark parcel, containing a good deal of sediment, sold very cheaply at 6*d*. per gallon.

MATICO sold to-day at a good deal below the last quotations; good genuine leaves at 4*d*. per lb., and a less bright lot at 3½*d*. per lb.

MERCURIALS firm at the recent advance.

MUSK.—At to-day's auctions *Tonquin* musk of the first pile sold at a reduction of about 4*s*. per oz. on the rates which were reported to have been paid privately recently, but almost steady as compared with the preceding auctions. There was no fine blue-skin musk offered. Three caddies small to very bold rather damp pods, well-trimmed, old-fashioned shape, brought 81*s*. per oz.; while 82*s*. 6*d*. is the limit for a better parcel. Of four caddies fine, partly very bold dry pods, old-fashioned shape, partly thin skin, three sold at 83*s*. to 85*s*. per oz. Third pile, good shape, but very damp, brought 38*s*.; good, but rather skinny, 52*s*.; and false-packed, but thin blue skin, 63*s*. to 65*s*. per oz. Small well-trimmed *Cabardine* pods held at 23*s*. 6*d*. per oz.

OIL (CASTOR).—The position of *French* and *Italian* medicinal oils remains unaltered. For 39 cases good first *Calcutta* at auction to-day 5*d*. per lb. was suggested, but we should think 4½*d*. would not be refused. In Liverpool the market for *Calcutta* seconds has been rather weaker, and on the spot there is a decline of about ¼*d*. per lb., business being reported at 4½*d*. per lb. as against 4½*d*. last week. We call attention to an article on page 685 of this issue, relating to the recently observed adulteration of castor-oil with cocoa-

nut oil. The imports of castor-oil into Liverpool during the first 10 months of the present year have been 18,387 cases, against 23,492 and 26,416 cases respectively during the corresponding periods of 1888 and 1887. The first-hand stocks on October 31 were: 1889, 260 cases; 1888, 738 cases; 1887, 2,306 cases.

OIL (OLIVE).—The reports from the producing countries continue to be very unfavourable, not one of the usual sources of supply being expected to yield more than a small average crop, while Italy and Spain are expected to produce very much less than usual, and the South of France will only, it is said, give about one-fourth of the usual crop. On the spot we quote *Mogadore* at 35*s*., *Spanish* at 36*s*., and *Messina* also at 36*s*.

OIL (PETROLEUM).—*American* somewhat easier for the week, at 5½*d*. to 5½*d*. spot, 5½*d*. to 5½*d*. for December, and 5½*d*. for January-April; *Russian* spot rather better at 5½*d*. to 5½*d*. The total visible supply of petroleum oil at the beginning of November in the seven principal continental ports, London and Liverpool, consisted of 1,527,952 barrels in 1889, against 1,496,583 barrels in 1888, and 1,525,858 barrels in 1887.

OILS (ESSENTIAL).—The latest China mail reports are to the effect that on October 9 there were only 25 piculs *Star-anise* oil left in stock in Hong Kong, for which high prices were asked, and a cablegram received here yesterday states that there is a very brisk demand for the article. On the spot here 6*s*. 2*d*. per lb. has been paid, and some holders now require 6*s*. 4*d*. per lb., while the lowest "c.i.f." price is 6*s*. 2½*d*. per lb. *Cassia* oil very steady at 3*s*. 7*d*. to 3*s*. 8*d*. per lb. on the spot. From China the article is reported unchanged, with small stocks. We notice that some dealers in Hong Kong now sell this oil with a guarantee that it shall not contain over 10 per cent. of "resin." The difference in price between such oil and the "ordinary qualities" is about 12½ per cent. The shipments of *Citronella* oil from Ceylon have lately been much reduced. Our market is firm at 1½*d*. to ¾*d*. per oz. *Lemongrass* oil quiet at 1½*d*. to 1½*d*. per oz. At auction 9 cases Winter's brand were bought in at 2½*d*. per oz. The production of essential oil of *Geranium* in the island of Réunion in the Indian Ocean is assuming considerable proportions. Several years ago experiments were first made to distil this oil in the island in question, and when these were successful the growers sold their crops for several seasons in advance at fixed prices to a few large European houses. These contracts, we understand, have now expired, and in future geranium oil from Réunion may be expected to appear regularly in the open market. The exports in 1887 were 2,786 lbs.; and in 1888, 3,992 lbs.; while during the present season they are estimated at 5,720 lbs.; and for 1890, the plantations having been largely extended, at 13,000 lbs., or more. The new flowers are now being distilled. In Africa, on the other hand, this season's yield of geranium oil is said to have been much below the average. *Lignoloes* oil is expected to rule higher for the better grades. Of *Patchouly* oil 2 cases Fisher's brand were bought in at 1*s*. 4*d*. per oz. to-day. Good white Penang *Nutmeg* oil sold at 5½*d*. per oz., and one case H.G.H. *Spearmint* oil at 9*s*. per lb.

OPIMUM.—A fair business in shipping opium at full prices is reported, but otherwise there is no alteration in the market.

POTASH SALTS.—*Potashes*, best Montreal, selling in a small way at 20*s*. 9*d*. per cwt. Pearlashes dull and neglected. *Bichromate* steady, at 4*d*. per lb. *Chlorate* rather easier, with sales at 4½*d*. per lb., and, although in some quarters 5½*d*. per lb. is still asked for forward delivery, we hear of business at 5*d*. per lb. in that position. *Prussiate* firm at 7½*d*. to 7½*d*. per lb. for yellow, according to brand. As briefly reported by us last week, the price of *permanganate* of potassium was suddenly lowered to 70*s*. to 75*s*. per cwt. by the combination of Continental makers, the object being to defeat certain offers of permanganate outside the combination control, which had somehow been brought to the market. Since the alteration reported, there has been no further change. English refined *saltpetre* 21*s*. to 22*s*. per cwt., according to packing.

QUICKSILVER.—At the end of last week the principal importers refused to sell at 9*l*. 10*s*., but early this week they

disposed, it is said, of about 3,000 bottles at that figure, subsequently raising the price to 9l. 15s., at which it now stands. The second-hand holders have fluctuated between 9l. 9s. 6d. and 9l. 12s., closing at 9l. 11s. to-day.

QUININE has been quiet and a little easier this week, although the makers still keep to the quotations reported in our last. But the second-hand holders have eased off a little, and there are sellers to-day at 1s. 2½d. spot (buyers at 1s. 2½d.), while for January-February 1s. 3d. has been accepted.

RHATANIA ROOT.—A lot of good bright red root sold at 6½d. per lb., while for ordinary 4½d. per lb. is asked.

RHURARB.—Of about 114 cases offered for sale to-day about 90 sold at firm prices with fair competition, except ordinary high-dried root, which was a shade easier. The following prices were paid:—*Shensi* fine medium to bold, heavy yellow coat, round ½ pinky fracture, 2s. 10d.; small and not so good, 2s. 4d.; small pale druggists' root even fracture, 2s. 9d.; small to medium, ¾ good red fracture, 2s.; ditto partly wormy root, greyish fracture, 1s. 9d.; flat mixed sizes, yellow coat, rather spongy fair fracture, 1s. 5d. to 1s. 6d.; common, very wormy, 5d. to 7½d.; untrimmed root, small to medium round, dark coat and rather colourless fracture, 4½d. to 5½d. per lb. *Highdried*, small to medium fair fracture, rather soft texture, 11d.; small even pinky fracture, 10d. (one lot, 9½d.) per lb.

SAFFRON.—Prices are reported much lower from Spain, say at 49s. per lb. for the best Valencia. There has been a good deal of buying in the new crop on the part of Continental dealers.

SENNA.—Of 323 packages *Tinevelly* senna offered to-day, 208 sold at full rates, the better qualities especially being very dear. There was a very fair proportion of good-class leaves. These sold at 10½d. to 1s. 3d. per lb. for good to fine bold green, but somewhat rusty, leaves; 7½d. to 10d. for fair medium green to good ditto; 5d. to 6½d. for yellowish mixed medium to bold; 3½d. to 4¾d. for small to medium fair greenish mixed with yellow; and 2½d. to 3½d. for ordinary small, mostly damaged, yellow mixed. 313 bales *Tinevelly* were imported from Bombay in the *Clyde* this week.

SHELLAC.—At the end of last week the market seemed to be somewhat more animated, and sales were reported privately at 63s. 6d. to 64s. for AC *Garnet* on the spot; but as the auctions approached, business again became slower, though the quotations were nominally maintained. At the auctions a strong demand prevailed, and prices advanced 1s. per cwt. for orange lac over those of the preceding auctions, good fair to bright *Second orange* (worked) selling at 76s. to 79s.; and ordinary livery and cakey to fair reddish, 71s. to 74s. per cwt. Since the auctions the improvement has made further progress, and a rather heavy business is reported both on the spot and for arrival: *Garnet* AC at 64s. to 65s.; and *Second orange* at 72s. 6d. up to 76s., according to quality. To-day there is rather less doing in the market, but some transactions are reported at steady rates. At the call this afternoon the following were the quotations:—

		Nov.	Dec.	Jan.	Feb.	Mar.
Orange TN, sellers .. ..	..	76/	77/	—	78/	78/6
" buyers .. ..	..	74/5	76/6	100 at 77/6	76/6	77/6
Garnet AC, sellers .. ..	..	66/	67/	67/5	—	—
" buyers .. ..	..	64/	65/	66/	—	—

which is an advance of 2s. 6d. to 3s. for both orange and garnet lac as compared with the previous Thursday.

SPICES.—*Arrowroot* dull at auction and nothing sold there. Privately about 400 barrels St. Vincent have changed hands at 2¼d. per lb. *Chillies* dull, fair bright Zanzibar, 32s. to 33s. *Cloves* depressed on the spot and rather lower; ordinary dark to fair Zanzibar, 5d. to 5½d.; picked Java, 9d. to 9½d.; fine Penang, 11½d.; common dark to good Amboyna, 6¾d. to 8¾d. per lb. Privately a fair amount of business is passing for shipment at 5d. c.i.f. terms. The new crop of *Cassia buds* is now coming to market in China. *Cassia lignea* is selling slowly at 22s. 6d. per cwt. for fair quality, and at 16s. 6d. per cwt. for broken. There is also a stock of about 60,000 piculs of cassia in Canton. Jamaica *Ginger* sells at 66s. to 75s. for common to medium washed. Cochin in rather better demand, though selling very cheaply;

for rough cuttings and tips, 10s. 6d. to 14s. 6d.; small to bold rough washed, 16s. to 21s. *Nutmegs* slow of sale, and from 1d. to 1½d. per lb. lower all round. *Mace* also 1d. per lb. easier. *Black pepper* dull, and about ¼d. lower on the spot, while for arrival prices are also about ¼d. cheaper. *White pepper*, cheaper for Singapore, at 10½d. per lb. *Pimento* rather lower at 2½d. to 3½d. for grey to good clean.

STROPHANTHUS.—Six casks, containing 2,546 lbs., of *Holurhena antidyenterica* seed from the African West Coast were offered as strobanthus, and bought in at 5s. per lb., there being no bids. The article is practically worthless.

TAMARINDS.—West Indian tamarinds are much neglected, with sales of medium *Barbadoes* at 12s., and ordinary dark *Montserrat* at 7s. 6d. per cwt.

THE AMERICAN MARKETS.

(Cablegram from our Correspondent.)

NEW YORK, Thursday Morning.

CAMPHOR.—The price of refined camphor has been advanced at the rate of 1d. per lb. this week by the makers.

OIL OF PEPPERMINT.—A sudden decline of about 6d. per lb. has occurred, in consequence of several speculators, who some time back bought oil, having apparently lost faith in the article, and thrown their supplies on the market. To-day H. G. Hotchkiss' oil is being offered at the rate of 10s. 3d. per lb. "c.i.f." London terms.

SARSAPARILLA ROOT.—The stock of *Mexican* root (Vera Cruz) in the hands of the importers has been bought up for shipment abroad, and prices are now advancing for second-hand lots. As regards *Honduras* sarsaparilla, heavy arrivals have taken place during the last few days, but they meet with no demand, and prices are distinctly tending easier.

THE SPANISH SAFFRON CROP.

VALENCIA, November 2.

THE trade season in saffron for October, 1888, to October, 1889, has just closed, about 600 kilos. remaining over from last year's crop. The sales for the season at this port have amounted to a total of 33,013 kilos. in 1888-89, against 28,994 kilos. in 1887-88, and 33,464 kilos. in 1886-87.

Never in the annals of the saffron trade have prices reached such high figures as during the last season; they began with 120f. per kilo. for ordinary and 134f. for superior quality; and as early as in November, 1888, they rose to 137f. per kilo. good and 141f. for superior. Usually during the month of November saffron is lowest in value, but on this occasion prices continued their upward movement until August, 1889, when they reached 155f. for good and 160f. to 165f. for superior, and even 170f. for a selected quality.

In spite of these tremendously high prices, the demand never ceased throughout the whole year, and sales were made with the same frequency as they are in normal seasons, and at ordinary prices.

But the proximity of the new crop, and the favourable reports about it, made prices decline in the month of September to about 140f. for good and 150f. for superior quality, at which rates the season closed.

The new crop, although later this year than usual, has so far been gathered under favourable circumstances; the quality seems good, and the quantity is estimated at about 10,000 kilos. more than last year, owing chiefly to a greater amount being planted, but also to the influence of fine weather.

Prices opened at 140f. for good and 150f. for superior quality, but are expected to decline further as soon as stocks begin to fill up this market and are in excess of the demand.

Speculators are wont to buy up at what they deem the lowest points, generally in the month of December or January, and after these operations what may be considered the turning-point of the season sets in, prices moving upwards until summer-time, slower or faster according to the demand.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

Pharmaceutical Society v. Wheeldon.

SIR,—Your report of this case will, I venture to think, be read with interest by chemists all over the country, because, for the first time, it has been decided that it is a penal offence for an unqualified assistant or apprentice to sell a pennyworth of white precipitate powder or oxalic acid, or a packet of Battle's vermin-killer, and also because it is the first time (so far as I am aware) that the Pharmaceutical Society have, by prosecuting, adopted this view officially.

The decision was no surprise to those who conducted the defence, because it was felt that legal dicta would govern the case, but the judge, although governed by these dicta, expressed the hope that his decision would be appealed from.

Lord Selborne, in a case which was not "on all fours" with the one before the Wandsworth Court, and on a point which, I believe, was not argued before him, said in effect that Section 15 struck not only at chemists, but at their assistants and apprentices.

I believe I am right in saying that up to that time the general belief—nay, conviction—was that the authority of the qualified principal covered his employés, and that the section, which is described in the margin as referring to "protection of titles and restrictions on the sale of poisons," had to do simply with restrictions on the sale of poisons by persons whose titles were therein protected, and did not in any way refer to servants. Had the belief been otherwise, it is not probable that the Act of 1868 would have been carried in its present shape.

However, for the first time a decision has been taken, and an opportunity afforded of having the point properly argued before a Superior Court, and it is now for the members of the trade to say whether they will avail themselves of it. Their answer will signify the measure of importance they attach to the restrictions imposed.

I am, sir, yours obediently,
50 Bishopsgate Within, E.C. M. E. FOSTER,
November 14. (Defendant's employer.)

Chemists and the Law.

SIR,—The law does not allow us to remain long in ignorance. The enclosed notice respecting the sale of methylated spirit within certain hours was delivered to me a few days ago. Your other correspondents will no doubt have a similar one before long.

Yours very truly,
HEDER. (173/61.)

The Sale of Poisons.

SIR,—I see by your reports of the Alfreton case, that the chemist pleaded guilty to the charge of having sold strychnine to a person without observing the usual formalities, and was fined 2*l.* and costs. I have never seen any authoritative statement why Battle's vermin-killer should be registered. The Pharmacy Act classes vermin-killer in Part II. of Schedule, to be labelled with the name and address of seller. I know that Part I. includes strychnine and its preparations, but I would contend that this does not apply to vermin-killers.

Though it is a well-known fact that Battle's relies on strychnine for its deadly power, still we are not, as sellers, bound to be aware of that fact. We buy it as vermin-killer, and in selling it should label with name and address. It is well known that chlorodyne contains morphia, prussic acid, and chloroform—we do not, however, label it poison. Further, many of the proprietary sheep-dips largely sold are combinations of arsenic, but we do not register them. I do not consider the signing of the poison-hook has much deterrent effect. I would suggest that the makers of vermin-killer print with their directions the symptoms of poisoning with strychnine, stating the average time a person would suffer, and the agonies they would endure; this would be far more effectual. A youth here took phosphor paste, and he told our inspector of police that he did not think he should suffer, but thought he would go quietly off.

I am, sir, yours obediently,

November 9.

D. S. W. (173/19.)

[We cannot endorse this advice. The fact that vermin-killers are included in Part II. of the Schedule does not affect the other fact that strychnine and its preparations are in the first part. And we think it would be a had defence to suggest that the seller is not bound to be aware of the nature of the poison he sells. The essential purpose of the Pharmacy Act is to provide a body of men who are acquainted with the nature of the poisons in which they deal.—ED. C. & D.]

The Paris Awards.

SIR,—A little controversy appears in your issues of October 5 and 19, between your Paris correspondent and Mr. L. Monrad Krohn, a juror at the Paris Exhibition, upon the above subject, particularly as regards cod-liver oil. I have read both these communications with great care and considerable interest, and I find that, whatever else they may be at issue upon, on one point there is perfect accordance, viz., that the oil placed before a jury ought previously to have been kept protected as much as possible from the influence of heat and light—your correspondent complaining of the jury having had to judge samples that had been exposed to the high summer temperature and the sun's rays for a considerable time, while Mr. Krohn, on the other hand, asserts that the exhibitors were informed as to the day the jury intended to call, and it was even suggested to them (the exhibitors) to substitute fresh oil in place of the long-exposed samples.

Now, differing in opinion entirely from both these gentlemen, and having had considerably longer experience in making than Mr. Krohn of exporting the oil, and, furthermore, having personally been present at about a score of juries' judgments of the article, I am sure you will kindly allow me an expression of opinion upon the present mode of judging cod-liver oil at exhibitions, the more so as I am not an exhibitor at the Paris Exhibition, and can therefore scarcely be suspected of partiality.

Cod-liver oil and its manufacture are foreign to nearly all, if not all, the jurors appointed to judge it, and the majority, therefore, follow the lead of the one or two who are supposed to have some acquaintance with the matter. Sometimes the latter are commercial gentlemen with a very superficial knowledge of the manufacture, and no knowledge whatever of the chemistry, of cod-liver oil. Often it is the proprietor of a chemist's shop, who, as such, is supposed to be a proper judge, although in reality he knows little more than the rest. Again—but very rarely—it may be a real manufacturer, but always one entirely free from any scientific pretensions. Even when these are surrounded by an array of celebrated names like those enumerated by Mr. Krohn, it would be of little avail, as there are so very few who have made cod-liver oil and its manufacture a special scientific study. Sir H. Roscoe himself, Mr. Krohn's great "trump," would, I have no doubt, be the last to claim all the knowledge of the oil and its manufacture necessary to be a proper judge. The result, then, is that the different samples are subjected to the following not very scientific tests:—(1) They are looked at; (2) they are smelt; (3) they are tasted; (4) sometimes—but that is exceptional—they are put into ice for some time. Now the making for exhibition purposes a small quantity of oil which, kept cool and well protected

from air and light, will stand to perfection these four tests, is such a simple operation that, given a kitchen and the livers, anybody's cook can perform it. The natural suggestion should therefore be that everyone should take the "first prize," but as a fact they do not, though their exhibits may be equally good or bad, as the case may be, and that for the following reasons. Juries, in their opinions, vary very much as to the importance of colour: some attach no weight to it—as at the Copenhagen Exhibition last year; others consider the colour all important—as evidenced at the Berlin Fishery Exhibition. Both conclusions are erroneous. The oil has naturally a certain degree of yellow tinge, a shade lighter in Finmark oil than in the Lofoten: darker from lean livers than fat ones, *ceteris paribus*. A darker oil than any of these results from the process of melting lasting too long. On the other hand, a lighter colour than that of the best Finmark oil is the result of bleaching in the sunlight. At Berlin a very much bleached oil, nearly colourless, received a first prize. At Copenhagen a very dark oil, evidently the result of careless preparation, received a similar recognition. In these cases the cause of the colour was obvious, but in most cases it is very difficult, even for experienced manufacturers, to pronounce, from the colour, with any certainty upon the oil. So much for the colour, to which most juries attach such great importance.

De gustibus (and, I suppose, *de odoribus* too) we should not dispute. The Finmark oil has certainly a twang, though a very slight one, alien to oil from other localities in Norway, but from amongst these latter, if properly prepared and from fresh livers, and having been well protected from heat, air, and light, I should not be able to select one as better than the others by the guidance of my tongue and nose; and if the jury were to set to work immediately after the arrival of the oil I think they would find themselves in the same dilemma. But they do not, and in the interval the oil may be more or less changed. When, then, the exhibitors are duly warned of the jury's approach (as in the Paris Exhibition), those who are so fortunate as to be present substitute fresh oil for their turbid and rancid exhibits, and thus have an immense advantage over their less fortunate absent competitors.

So much for the present mode of judging by taste and odour.

As for the stearin, the removal of which is such an easy operation when it is only from the small quantity required for an exhibition, and when, consequently, the loss by waste is of no consideration, its absence or presence should not influence the judgment much. The quality of the oil is in no way whatever indicated by the stearin, which originally is present, more or less, in every oil; the latter being cooled down in ice until the stearin becomes solid and settles at the bottom of the vessel, the clear oil poured off will be as free from stearin as any jury is likely to demand.

With all that is stated above it is, therefore, curious and interesting to observe the results of the way in which juries have hitherto performed their duties. The same exhibitor who at one exhibition receives a first prize at the next gets nothing at all, and then at a third exhibition a second or third prize, although I am sure that his product, and the others too, have been exactly the same all through.

The four tests now in use are therefore no criterion and of no value. There is, however, another of the oil's qualities which juries have hitherto neglected, but which, combined with the others, would be sufficient to do justice all round whilst waiting the further development of the chemistry of cod-liver oil, that is, its ability to keep without turning turbid or rancid. No oil can stand prolonged action of the air's oxygen; but when air is excluded, the power to resist the influence of time is almost proportional to the care and insight bestowed upon its preparation, and affords, therefore, a ready means of judging of its real quality.

There are few products (if any) that require so much thought and care in their preparation as cod-liver oil, if it is to remain unimpaired for any considerable length of time; scarcely any other body in the whole Pharmacopœia requires so much delicacy in its treatment; this is proved by facts, as—when, during the process of melting, the livers have been overheated; when the proper duration of the same process has been exceeded; when old or unhealthy livers have not been rigorously excluded (and, in spite of the inevitable advertisement of "selected livers," how few really comply with

this necessity, since competition is so fierce and prices so low!); when the filtering has been imperfectly done; when cleanliness at every step of the preparation has not been the paramount rule—then, in all these cases, sooner or later a sediment, varying in quantity, will form, however carefully the air may be excluded. This is sometimes a dark reddish brown or yellow, or it is a whitish precipitate, or again a voluminous jelly-like deposit, &c.; but the good oil, in the preparation of which all possible precautions have been taken, will not for years show a similar tendency.

After the researches by A. Gautier and L. Morgues there can scarcely be any doubt that this is owing to the action of bacilli, whose actual existence I have not yet succeeded in establishing, though I have reason to hope the day is not far distant.

Now, therefore, it follows that the only way to judge between different oils would be to observe how they individually behave under the same most trying conditions, continued as long as practically possible. If any sample should prove to be not essentially impaired either in taste, odour, or appearance at the end of the exhibition, I should pronounce that a perfect oil.

I visited the Paris Exhibition in the latter part of October and found there were about sixteen exhibitors of cod-liver oil from Norway, all of whom, with only a single exception, had received honours of one kind or other! Not one, however, of all these prizetakers had an absolutely clear specimen to show; all were more or less cloudy with sediments of different kinds. I had no opportunity of tasting or smelling the oils, but, looking to their outward appearance and to the prizes awarded, the latter seemed to have fallen upon the lucky recipients by chance in a raffle.

I am, dear sir, yours truly,

43 Snow Hill, E.C.
October 30.

F. PECKEL MÖLLER, Ph.D.
(Firm of Peter Möller.)

Influenza Remedy.

Mr. H. Machon, Saffron Walden, sends the following:—

Tinct. camph. co. ..	..	..	..	3j.
Spt. æth. nit. ..	..	..	..	3j.

Ft. haustus, nocte minimeque sumend. ex aquâ.

He adds:—The late Mr. Tribe, of Chatham, sold an immense quantity of the above simple yet effective mixture (amounting to several gallons) during the epidemic of 1832. I have heard an old apprentice of his say it was found most efficacious.

A Variegated Show-bottle.

SIR,—Since you gave the above in your issue of August 31 I have watched to see if anyone has taken the trouble to make it, but have seen no reply. I have made it, with the following result:—

(1) I tried several firms, but could only get solution of indigo sulphate; result anything but good. (2) Chloroform—Fairly good. (3) Glycerine coloured with caramel—Could not get caramel anywhere, used roseaniline with very good result. (4) Castor oil, coloured with alkanet—Very good. (5) Proof spirit, tinted with green aniline—Very good. (6) Cod-liver oil + 1 per cent. turpentine—I consider the best colour of all, but when added it displaced 5, consequently 5 and 7 amalgamated.

I shall be glad to know if you can give me a hint to improve upon it, as I should like to make another for Xmas show. Also, what is a "thistle" funnel?

Yours faithfully,

November 9.

CASE. (172/54.)

[Caramel (burnt sugar) is as common in the mineral-water trade as syrup is. Our correspondent does not write too clearly. That is the reason probably why wholesale houses found themselves unable to fill his order. No. 5 colour:—A little water added to this will keep it in its place. "Thistle" funnels are in common use in chemical laboratories, and may be obtained from any maker of chemical instruments.]

LEGAL QUERIES.

170/22. *J. W.*—The poisons which unregistered persons may not sell are named in THE CHEMISTS' AND DRUGGISTS' DIARY.

170/47. *W. T.*—The Act provides that no person shall be appointed public analyst subsequent to 1875 "for any place who shall be engaged directly or indirectly in any trade or business connected with the sale of food or drugs in such place." Our correspondent asks whether under this provision a chemist in Chatham, say, would be eligible for Dover or other towns where he might have an agent for the sale of his goods. We do not know that there has been any discussion of any such point, and we do not think any definite rule can be laid down. We do not think the clause was intended to apply to a case like the one suggested; but at the same time we do not think Mr. Colman, the mustard man (to choose a prominent example), ought to be appointed in any town in the country. Any case should be judged on its merits.

171/27. *Mag. Sulph.*—A debt remains in force until it is paid or satisfied, but the right to recover such debt in a court of law is barred after the expiration of six years from the date when the debt was contracted, unless there has been an acknowledgment in writing or payment on account of the debt. In the latter case the six years run from the date of such acknowledgment. There is nothing, however, to prevent the creditor getting paid in other ways if he gets the opportunity, as the Statute of Limitations does not bar the debt, but only bars the right of action. Judgments remain in force under the Statute of Limitations for twelve years from the date of judgment, or from the date of an acknowledgment or payment on account, but under the rules of the Supreme Court execution cannot be issued on a judgment after six years. In the County Court execution cannot issue without leave of the Court after the expiration of two years from the date of the judgment. Judges' orders are of so numerous and varied a character that it is difficult to understand the particular order our correspondent refers to. It may be taken, however, as a general rule that a judge's order remains in force until it is obeyed, although some of them participate in the nature of judgments.

173/26. *B.* describes the process he has invented for a medicinal preparation, and asks us and our readers to advise him how he could patent such a novelty in such a way that it would not be likely to be upset. He does not seem to be aware of the fact that the publication of his letter would invalidate his patent if he took one subsequently. We cannot say whether the process is sufficiently novel to be patentable. "B." had better consult one of the patent agents who advertise in this journal and Diary.

173/38. *Mag. Cit.*—If a medical man carries on business as a chemist and druggist, as he is entitled to do, his executors may continue the business after his death if they employ a legally-qualified manager.

174/9. *Vcrax.*—We have given you a legal opinion on your case, and cannot advise you further.

174/2. *Lozengc.*—You could probably patent your lozenges, but the patent would not be much good to you. Anybody else could make a slight alteration in the formula and call it an improvement. You can get a form for specification at the post office. It will cost you 4*l.* for four years. You could register your title with your name or signature.

174/29. *W. J. T.*—Penal statutes are always construed strictly, and it is possible therefore that if you proved you gave the methylated spirit during the prohibited hours you would get off. But you would be unwise to risk so much on a verbal technicality. The sale of it mixed with something else would be a sale of it, and is in strictness prohibited.

You must please refer to the DIARY for answers to your other questions about spirits. A cough-mixture must be labelled "Poison" if it is a preparation of morphia. We should not think ourselves that the minute quantity you name would make your mixture a preparation of morphia in the sense of the Act—but a magistrate might take a different view.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Capsicum Pills.

164/7. *J. McDonald* (Bradford).—There is no difficulty in making these. Use the finest-powder capsicum, and mass with glycerine of tragacanth. A little liquorice may be necessary to make bulk.

Sp. Chloroform. Co.—*Benzoin* (155/21) has never met with the term in a prescription, but, if he did, would dispense *sp. chloroform.*, B.P. He had *dec. cinchonæ co.* in a prescription the other day, and gave *dec. cinchonæ*, B.P. *Attraction* (168/8) would certainly use *tinc. chloroform. co.*

Sodii Bicarb.

Attraction (168/8) considers doctors as careless of such terms as the public are ignorant, and would, as a rule, dispense the bicarb., especially if dose were large.

Heder says:—One of our resident surgeons always orders the carb., but I know he means *bicarb.* to be used. I get an example almost every day.

Is it not thus:—Old style, *sodæ carb.*; new style, *sodæ (or ii) bicarb.* Old style, *sodæ subcarb.*; new style, *sodæ carb.*? E. (168/13.)

SIR,—“B.” would be quite right in using *sodii bicarb.* The public, in ninety-nine cases out of a hundred, demand “carbonate of soda” and expect to be supplied with bicarbonate. A medical man who writes “*sodæ carb.*” handed me, a short time ago, a prescription for mixture in which one of the ingredients was *sodæ carb. com.* On inquiry I found he wanted the normal carbonate. Yours,

ERICA. (168/46.)

165/20. *Sigma* asks:—Will some of your readers who have had experience give the prices usually charged by chemists to surgeons for dispensing mixtures, &c.?

A Turpentine Mixture.

164/4. *Assistant* wishes to know what will make the following inseparable?—

Dec. aloes co.	..	..	..	..	3j.
Spt. ammon. arom.	..	..	..	..	3j.
„ terebinth.	..	..	..	..	3j.

[The quantity of spirit renders emulsion with acacia out of the question. In the circumstances, make the most of the emulsifying properties of the non-oleaceous ingredients. Mix the turpentine with 20 grains of compound tragacanth powder. Then add the decoction and shake. The sal volatile should be added, drachm by drachm, gently shaking after each addition.]

Ferri Citras.

173/18. *Eteve.*—“When ferri cit. is ordered it is usual to dispense ferri ammon. cit., which is the only official preparation corresponding to the title; but if a mineral acid be contained in the mixture the simple citrate of iron should be used.”—“The Art of Dispensing,” p. 20.

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

165/57. *Taff.*—**Label Varnish.**—Dissolve amber-coloured resin in its own weight of spirit by the aid of a gentle heat. For other formulæ see our forthcoming DIARY.

165/47. *Prelim.*—The Westminster College of Pharmacy publishes such a book.

166/4. *Scot.*—In sending measurements to elastic-stocking makers it is not customary to deduct anything, simply to send the actual measurements. They do the rest. A sixth is about what they allow.

166/11. *S. Arthur.*—See our issue of November 3, 1888, page 636, for the outlines of a chemistry lecture.

166/62. *Viola.*—**Herb-beer Extract.**—Consult our issues of July 28, page 139, and October 6, 1888, page 495.

166/33. *Physic.*—(1) Mixtures of a similar nature are explained in "The Art of Dispensing," which please consult. (2) Hoblyn's "Dictionary of Medical Terms" (Bell & Son, 7s. 6d.).

166/58. *C. E. L.*—We have recently inserted a formula for ringworm lotion for cattle. (See January 26, 1889, page 148.) The matter is fully treated in the forthcoming DIARY.

166/6. *Odont.*—THE CHEMISTS' AND DRUGGISTS' DIARY, 1890, will give you the information you require.

166/1. *E. B. C.*—We never heard of a satisfactory process without mechanical aid.

168/18. *Sapo Mollis.*—We cannot spare time to analyse sauces.

167/17. *Eglantini.*—You will find several formulæ for acid solution of pepsin in the 1889 DIARY.

167/69. *Misc. Acac.*—Please take the hint which we have recently given to apprentices generally, viz., search our back numbers. You will find the process both entertaining and instructive, and will come across a number of formulæ of the kind you are in want of.

167/62. *Crystal.*—"Extract of Malt."—This extract granulates and becomes solid with age. How can this be prevented? We quote from the blue list of the British Pharmaceutical Conference. The change is, doubtless, due to crystallisation of maltose. Fermentation of malt extract we should attribute to its being improperly concentrated.

167/71. *Homœopathic.*—It will be time enough to answer your questions when you succeed in writing courteously.

168/47. *Quin.*—Subiodide of mercury is hydrarg. ioidid. virid. of the last Pharmacopœia.

168/35. *Manna.*—Gutta-percha solution can be clarified by shaking with a little white lead, and setting aside to settle.

171/36. *J. Brew.*—You will find the sketch of the still fixed to a kitchen grate in THE CHEMIST AND DRUGGIST DIARY, 1884, page 128.

159/6. *W. R. B.*—**Moles** can only be removed by a surgical operation. See our issue of October 26, page 602.

159/3. *Erust.*—The addition of alum to a gelatine solution is not advisable; it only hardens it and makes it opaque. We should modify your formula for **Glycerine Jelly** as follows:—

Gelatine (Cox's)	..	..	..	..	1 oz.
Glycerine..	..	..	..	..	10 "
Boracic acid	..	..	..	..	2 drachms
Water	..	..	..	..	30 oz.

Steep the gelatine in the water until quite soft. Meanwhile dissolve the boracic acid in the glycerine, mix with the gelatine, and dissolve on the water-bath. While hot add 15 drops of oil of lemon and 6 drops of otto of rose, stir well, and strain through a hair sieve.

Vicker's "Isinglassine" is a good and cheap article for making glycerine jellies.

170/45. *Taffy.*—We think you are mistaken in regard to the **Quinine Wine**. The quinine is dissolved, but simultaneously calcium sulphate, and probably other calcium salts, are thrown out, and continue to precipitate along with colouring matter for some weeks. The best plan is to set the wine aside for a month, then pour off as much as possible of the clear wine. The dregs should be mixed with the next batch that is made, so avoiding filtration, which we have found to be not so good as decantation.

170/44. *W. H. S.*—**Corns on the Soles of the Feet.**—Pare the corns carefully after immersing the feet in hot water for ten minutes. Then apply a piece of **Corn-plaster** made as follows:—

					Drachms
Salicylic acid	..	..	..	..	2
Common resin	..	..	..	..	2
Methylated ether	..	..	..	..	6

Dissolve and paint over opium-plaster spread on swans'-down. Cut to a suitable size.

A piece of this plaster should be applied to the corn and renewed twice a week.

170/12. *Douche.*—The **Salts of Sozoiodol** are referred to in "The Art of Dispensing," page 236. They are used in place of iodoform. We must refer you to the advertisement in our issue of July 27, wherein full particulars are given regarding their therapeutic use, or you might apply to the agent, Mr. F. Boehm, 27 Billiter Square Buildings, E.C., the agent for the maker.

170/9. *Meliora.*—There is no book that we know of on diseases of the finger-nails; they are included under skin diseases. Consult Mr. Malcolm Morris's book, "Skin Diseases: including their Definition, Symptoms, &c." (7s. 6d.)

170/19. *Raithby.*—(1) The book you suggest will probably be published, but not this year. (2) **Tattoo Marks** are practically permanent. About a year ago it was suggested that they could be removed by pricking a strong solution of tannin into the spot, then rubbing with lunar caustic, and allowing the latter to remain until the prick-marks appear as black spots. The caustic is then wiped off. In the course of a fortnight a scab is said to form, and when that disappears the tattoo mark goes with it. We question the efficacy of the method, but it is the best which has been proposed except the surgeon's knife.

170/8. *Inver.*—The addition of calcium chloride would prevent the water freezing. The crude chloride could be bought cheap from alkali makers.

170/55. *T. V.*—Violet powder is good enough to give the skin a white appearance in tableaux vivants. First sponge the skin with glycerine and rose water, dry, and apply the powder.

170/54. *W. L.*—The substance appears to be common spirit of tar which has evaporated somewhat. Barbadoes tar has a greenish hue.

171/25. *Vernet.*—To become a Fellow of the Linnean Society you require the signatures of four fellows who are willing to testify to your fitness for the fellowship. The fees are 6*l.* for entrance, and 3*l.* per annum. Address the Secretary, Linnean Society, Burlington House, W.

171/21. *North Devon.*—Prussian blue is an unsatisfactory thing to dye silk handkerchiefs. You require a mordant (muriate of tin), which should be mixed with a ferric salt solution. The solution of ferrocyanide must be acidulated with vitriol. Keep the solutions separate, and dip the articles first in the one and then the other, washing after each immersion. You will find it much better to use aniline blue, such as Judson's or Crawshaw's.

172/7. *Qui Haye.*—**Cordials.**—We gave formulæ in the 1889 DIARY under "Household."

140/27. *Leeds.*—We do not have a working formula for the jelly squares. The component parts are gelatine, sugar, citric or tartaric acid, water, flavouring, and colouring.

172/58. *Ajax* (Plymouth).—If you read Mr. Siebold's paper in our issue of September 14, page 368, you will find all the information you require regarding the presence of arsenic in glycerine.

173/35, *Somerset*, and 173/15, *Gabriel*, will find formulæ to suit them in the 1889 DIARY.

174/11. *Forward.*—We only analyse articles which are likely to yield information of general interest to the trade. "A liquid" and "a powder" sent by you do not come within this category.

169/15. *Wilts.*—In our former reply we referred you to a formula for **Fehling's Solution** in two bottles. The following is Creswell's modification of the formula for a one-bottle solution:—

Sulphate of copper	35 grammes
Glycerine	200 c.c.
Water	200 c.c.

Dissolve.

Caustic soda	80 grammes
Water	400 c.c.

Dissolve.

Mix the solutions, boil for a quarter of an hour, allow to stand till clear, decant, and make up to 1,250 c.c. with distilled water. 10 c.c. equals 5 centigrammes of glucose.

168/11. *Veterinary.*—(1) There is no small book dealing with the horse, cow, and other farm-stock. Ward, Lock & Co. publish a series of 1*s.* manuals—"Country Life Books"—in which the cow, the horse and sheep, pigs, &c., are treated in separate books. We think you will find our forthcoming DIARY most suitable for aiding you in fitting up a veterinary medicine-chest. You might also get some hints from the various makers of veterinary specialities who advertise in this journal. (2) We cannot account for the liquefaction of

the **Neuro-Dental Colloid**. The pyroxilin is apparently precipitated, why, it is difficult to say. Try the following modification of the formula:—

Pure morphine	5 grains
Menthol	10 "
Rectified spirit	80 minims

Dissolve the solids in the spirit.

Pyroxilin	8 grains
Ether	$\frac{1}{2}$ oz.

Dissolve and mix with the spirit solution, then add 3 drachms of absolute phenol liquefied by heat.

Let us know how you get on with this.

168/45. *Nomen.*—See our issue of July 27, page 155, *re* window water-fountain.

168/55. *Syrupus.*—(1) See Dr. Symes's paper in our last issue. (2) Mr. Clague read a useful paper at the Newcastle Conference, which gives you the advice you require regarding Easton's syrup. (3) Martindale's formula for Parrish's syrup is about the best.

169/9. *Kino.*—**Decolorised Tincture of Iodine** is what you want. The B.P.C. formula is:—

Iodine	250 grains
Rectified spirit	$5\frac{1}{2}$ fl. oz.

Dissolve by the aid of heat and add

Strong solution of ammonia	10 drachms
----------------------------------	------------

Keep in a warm place until decolorised, and dilute with a pint of spirit if desired.

168/42. *Pavo.*—*Ol. sambuci virid.* is given for **Oil of Swallows**.

169/28. *A Subscriber.*—Mr. A. E. Johnson gives the following method for the **Estimation of Chicory** in mixtures of coffee and chicory:—"The sample is dried in the water-oven and 5 grammes are weighed into a large porcelain dish. About 200 c.c. of water are added and boiled for fifteen minutes. After allowing a minute or two for settling, the liquid is strained through a piece of copper gauze placed in a funnel into a 250 c.c. measuring flask, care being taken to disturb the grounds as little as possible. The latter are now treated with about 50 c.c. of water, boiled for five minutes, and the liquid strained off as before. The flask is then cooled, made up to the mark, well agitated and filtered, the liquid being poured on a *dry* filter; 50 c.c. of the filtrate (= 1 gramme of the coffee mixture) are then pipetted into a weighed flat-bottomed glass dish, evaporated to dryness over a steam-bath, and finally dried in the water-oven. Treated as above, chicory gives a mean percentage extract of 70, while coffee gives a remarkably constant percentage extract of 24. Consequently we have

$$\text{Percentage of coffee} = \frac{100 (70 - \text{percentage of extract})}{46}$$

Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

165/36. Maker of Wood's poultry and pigeon pills.

169/67. What is "Medicated Tokay"? Where obtainable, and how sold?

170/34. Packing Epsom salts, baking-powder, &c. Experience and opinions wanted on the best and easiest mode.

170/17. What is lanoline oil, and what is its use?

173/32. Sultard extract, used as an ingredient in boot-top liquid. What is it?

172/72. *Chemist* asks what is the usual charge for hire of a full-size water-bed per week and month?

174/22. The address of W. Melin & Co., makers of "Thousand Flowers Soap."

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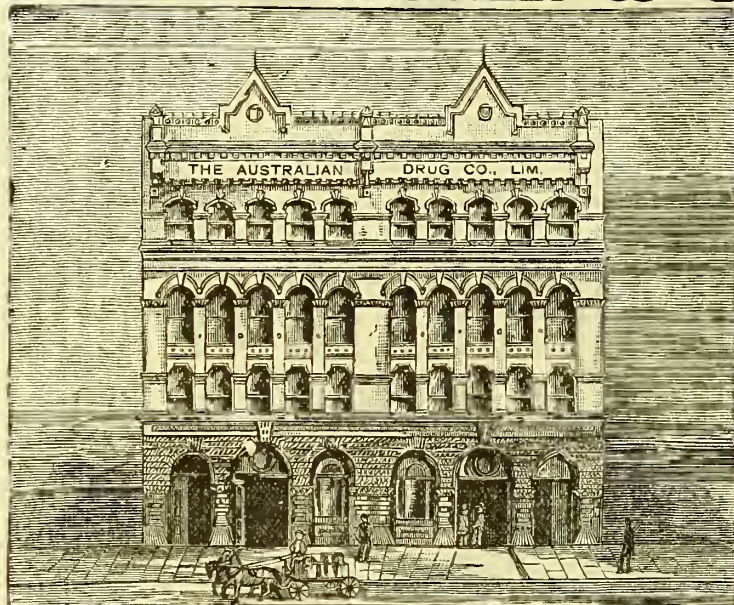
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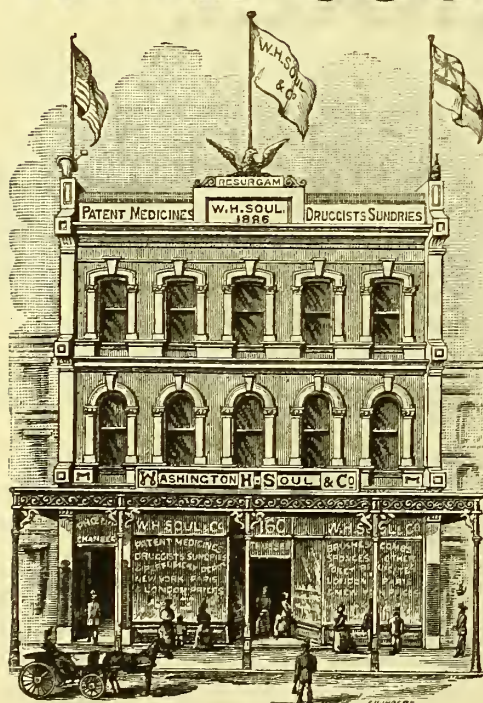
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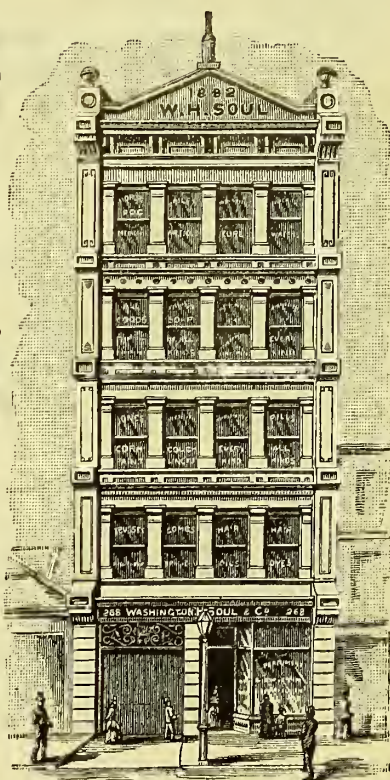
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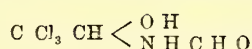
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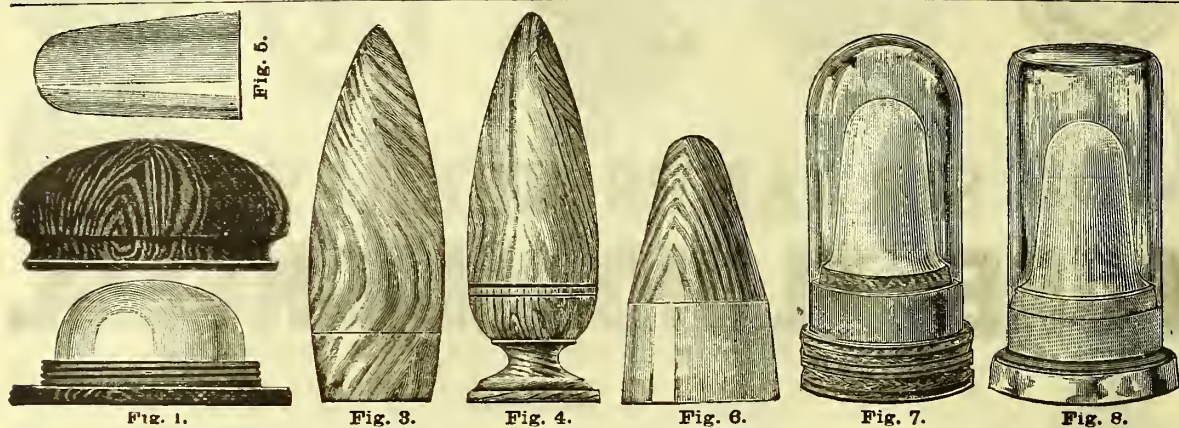


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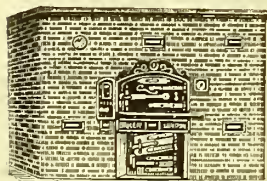
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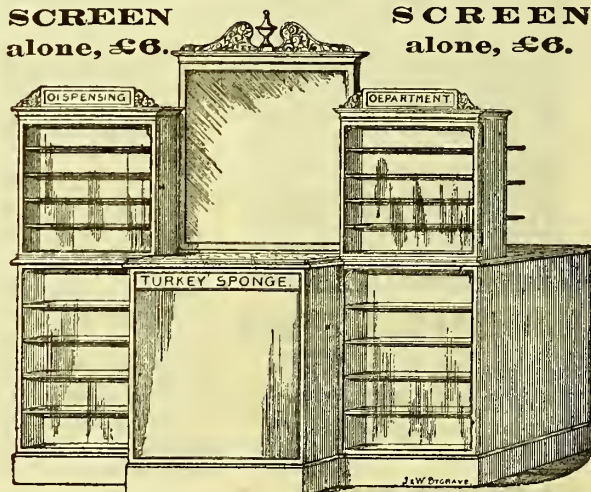
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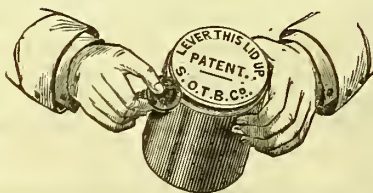
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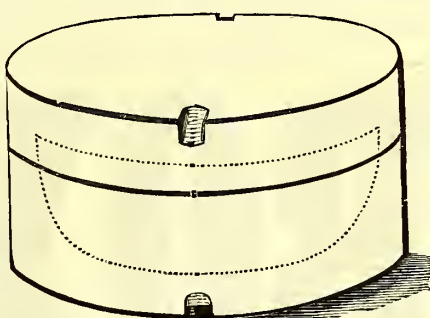
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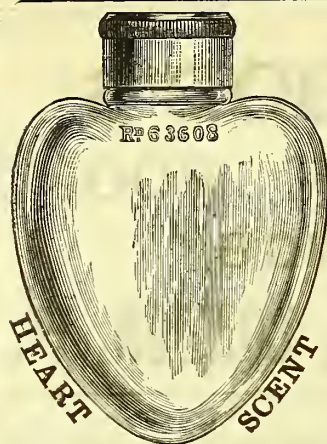
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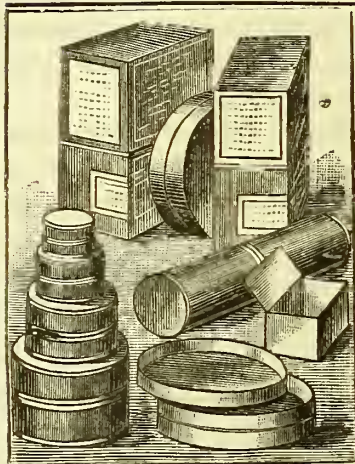
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94,500 SOLD IN THREE MONTHS

SAVING THEIR OWN COST.

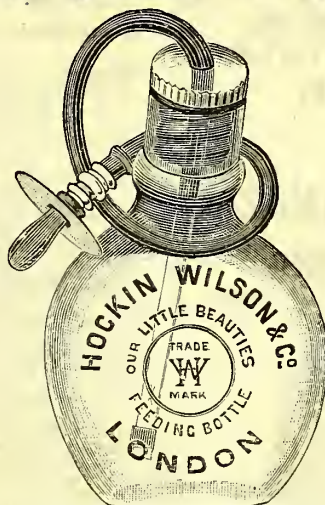
W. B. CHALMERS 37 MINCING LANE,
E.C.

OUR "LITTLE BEAUTIES" FEEDING BOTTLES.

BOTTLES ARE GOOD.

INDIA-RUBBER IS GOOD.

ALL FITTINGS ARE GOOD.



PRICES ARE LOW, AND
THE BOTTLES ALWAYS
SELL WELL WHEREVER
INTRODUCED.

ALL FITTED WITH BLACK TUBE AND TEATS.

No. 480.—White Glass, Screw Stopper, each in box, with Tube and Bottle Brushes, and spare Glass Tube (usual 1/6 Feeder) ...	5 6 per doz.	
„ 480/1.—Green Glass, Screw Stopper, fitted, loose... ..	2/9	In wood boxes of 1 doz., 3/10 per doz.
„ 480/2.—White Glass, Box Top Cork, fitted, loose... ..	2 6	„ „ 2/10 „
„ 480/3.—Green Glass, Box Top Cork, fitted, loose... ..	2/3	„ „ 2/7 „
„ 480/4.—Quinine Tint, Screw stopper, fitted, loose... ..	3/	„ „ 3/3 „
„ 608.—Anti-Corrosive Feeders, finest hand-made Bottle, in box, with Tube and Bottle Brushes, best and cleanest Feeder made ...	13/	„

FEEDER FITTINGS.

White Glass Screw Neck Bottles ..	2/ per doz	Tube Brushes ...	2/3 per grs
„ Plain „ ..	1/1 „	Glass Tubes ...	1/ „
Quinine Tint Screw „ ..	1/11 „	Bone Shields ...	2/ „
Green Glass Screw „ ..	1/9 „	Unions, Glass ...	4/ „
„ Plain „ ..	11d. „	„ Earthenware ...	4/ „
India Rubber Tube, best Black ...	7/ per lb.	„ Wood ...	7d. „
„ „ White ...	3/ „	Box Top Corks ...	2/9 „
Bottle Brushes ...	3/6 per grs.	Screw Glass Stoppers ...	4/ „

Special quotations given for large quantities, and large buyers may have their own names on the bottles. Any quantity of bottles from 1/2 gross may be had with buyer's name at a cost of 7/6 for plate on first order.

HYPODERMIC SYRINGES.

All in neat Cases, Spring Catch.

No. 102.—Vulcanite Mounts, 2 Steel Needles ...	2/ each.
„ 103.—Nickel-plated Mounts and 2 Needles ...	2/6 „
„ 103A.—With nickel-plated Mounts and Bars to protect the Barrel, 2 Needles ...	3/6 „
„ 104.—With Barrel enclosed in nickel-plated Mount, with slot for reading, 2 Needles ...	3/6 „
„ 105.—With pure aluminium Mounts, Graduation on Barrel, and 2 Needles ...	5/6 „
„ 106.—Nickel-plated Mounts, with movable Barrel, spare Barrel, and 2 Needles ...	4/ „
„ 107.—Superior Velvet-lined Case, with 4 nickel-plated mounted Bottles, ebony Plugs, a very superior Syringe, and 4 Needles ...	9/ „
„ 107A.—In plated Case for pocket, 10 minims, very portable ...	5/6 „

Hypodermic Syringes subject to 15 per cent. discount.

FULLER'S EARTH.

No. 626.—In elegant Enamelled Tin Box, suitable for Puff Box, 1 doz. outer ...	3/3 per doz.
1d. boxes, 6 doz. in outer ...	4/ per grs.
3d. round boxes, Bird pattern ...	1/4 per doz.
6d. „ „ ...	2/ „

GLYCERINE SYRINGES.



All best make.

No. 821.—All Glass ...	3/6 per doz.
„ 822.—Glass, with Vulcanite Pipe, cheap form... ..	6/6 „
„ 827.—Vulcanite Mounts, Glass Barrel, best make ...	11/ „
„ 828.—Vulcanite Mounts, Glass Barrel, Metal Piston Rod and Ring ...	12/6 „
„ 829.—All Vulcanite ...	12/6 „

Each in a nice box, 6d. per doz. extra.

CLINICAL THERMOMETERS.

In Cases complete.

No. 43.—*Indestructible Index, best make ...	2/
„ 44.—* „ „ Miniature ...	2/
„ 45.—*Magnifying „ „ ...	5/
„ 46.—Flat Back, will not roll, for Hospital use ...	2/
„ 47.—Thermometer for Nurse's use ...	1/9
„ 48.—India Rubber Guards for Hospital use ...	1/9

New Certificates for those marked * 1/3 each extra.

HOCKIN, WILSON & CO.,

13 to 16 NEW INN YARD, 188a TOTTENHAM COURT ROAD, LONDON, W.

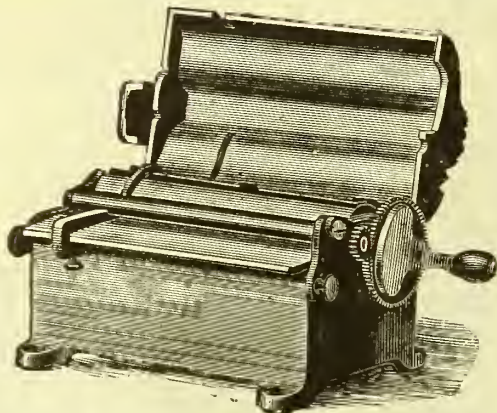
JOHN HOLROYD & CO., LIM.

Engineers, Tool Makers, and Machinists,
TOMLINSON ST. WORKS, HULME,
MANCHESTER.

**MACHINES FOR MAKING
COMPRESSED TABLETS.**

MACHINES FOR GUMMING

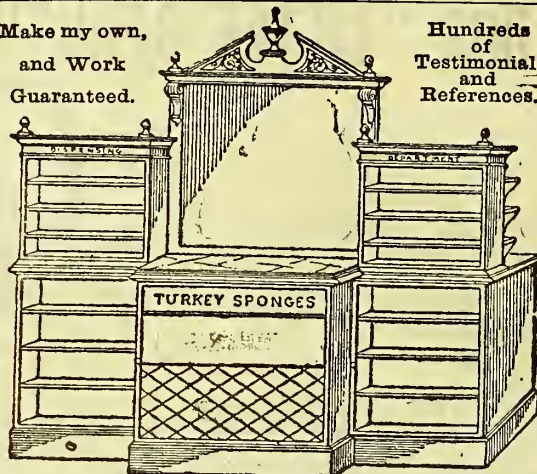
Either an entire surface or the edge only of Labels,
Wrappers, &c.



Machines Built to Contract for Inventors and
Merchants.

Make my own,
and Work
Guaranteed.

Hundreds
of
Testimonials
and
References.



The above represents a Plate-glass and Mahogany Dispensing Screen and Counter. The cases on each side of the marble slab over sponge case have silvered glass backs, and are fitted with movable shelves; the cases in front of counter are also fitted with movable shelves. The mahogany used is beautifully figured. At back under counter fitted with Drawers for Corks, Labels, Paper, &c., &c., and the back of screen with three shelves the entire length for Bottles.

6 ft. long, complete, £16; if Screen only, without Counter, £8 10s.

ELKANAH NATALI

(Established 20 Years),

SHOW CASE MAKER AND SHOP FITTER,
207 OLD STREET (Shoreditch End), LONDON;
Workshops—HENSON STREET, E.C.
(ONLY ADDRESSES).

No connection with any other house of the same name.
PLEASE ADDRESS IN FULL.

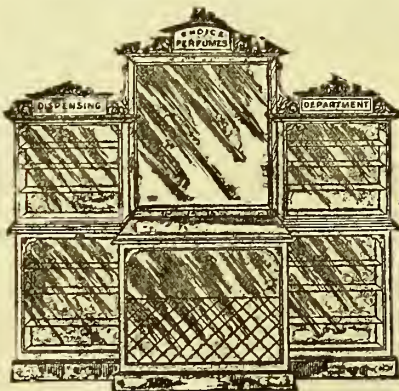
"THE CHEMIST" DISPENSING COUNTER.

6 feet long by 2 feet wide .. £24
If the Dispensing Screen only, £12

This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate. The counter has a solid mahogany top, and plate-glass case front. The centre part fitted to take sponge. A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work. The back of screen fitted with small shelves and a glass poison cupboard. The inside of counter fitted with strong counter drawers, label and cork drawer, open shelves, &c.

BOWLING & GOVIER

Manufacturers of High-class Shop Fittings,
GUN ST., BRUSHFIELD ST.
BISHOPSGATE, E.C.



NOTICE TO THE TRADE.

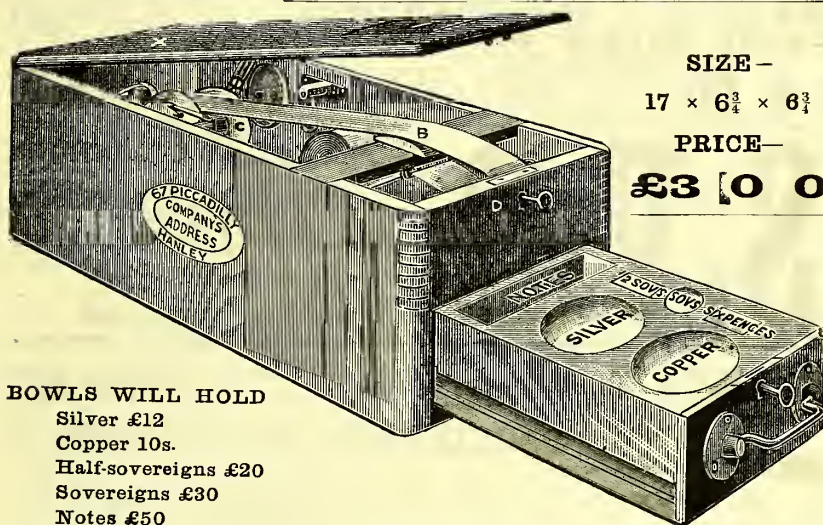
In consequence of inferior Second-hand Goods being sold for our make, we have found it necessary to protect our reputation for best work with a Trade Mark, as above, and unless goods are so stamped we cannot be answerable.

GEORGE TREBLE & SON,
FOR
CHEMISTS' SHOP FITTINGS & SHOW CASES.
SHOPS FITTED FROM £50.

DESIGNS AND ESTIMATES SUPPLIED IN TOWN OR COUNTRY.
ESTABLISHED FORTY YEARS. HIGHEST REFERENCES CAN BE GIVEN.
THREE PRIZE MEDALS.

Steam Factory: 27 CANAL ROAD, HOXTON, LONDON.

STOKES' PATENT CHECK TILL SYSTEM



SIZE -

17 x 6 $\frac{3}{4}$ x 6 $\frac{3}{4}$

PRICE -

£3 0 0

BOWLS WILL HOLD

Silver £12

Copper 10s.

Half-sovereigns £20

Sovereigns £30

Notes £50

We boldly assert this test oftener ends in failure than in success. In our system, entries being in black and white, or not made at all, it is obvious that if you employ customers, say once a week, to make purchases, and employer looks at entry made, he will at once see if it is correct.

A strip of paper, ruled pounds, shillings, and pence, registering 2,000 sales, is placed on the spindle A taken through bent wires, over the desk B, and thence on the revolving drum C. The lid being closed is locked at D, key being retained by proprietor or manager, who enters on the paper through slot E in lid (immediately over the desk B) the amount of change required to commence business, unlocking, opening, and depositing same in drawer F, this action causing paper to move forward, and rings bell G, leaving a blank space for next entry. The last three entries can be seen through glass in lid.

Rolls of paper registering over 2,000

Sales, 3s. per dozen Rolls.

Cheapest and safest check. The only possible way of evading the check is by the assistant entering on the paper a less amount than the sum taken from the customer, viz., 2s. 6d. is taken and 2s. entered, and also not entering the amount at all, viz., 2s. 6d. is taken and no entry made.

Exactly the same (viz., assistants do not put the whole, and very often not any, of the cash taken) occurs, probably in your own establishment, from day to day, in all shops where open tills are in use, the only tests for such thefts being the employing customers tendering marked coins in payment for goods.

30,000 SALES CHECKED FOR THREE SHILLINGS, OR 215 FOR A FARTHING.

Assists you to keep your books correctly by dividing receipts. The safest cash book, name and amount of debt being recorded. Sent on trial for Seven Days.

FULL PARTICULARS ON APPLICATION.

G. R. STOKES & CO. (LIMITED), HANLEY, STAFFS.

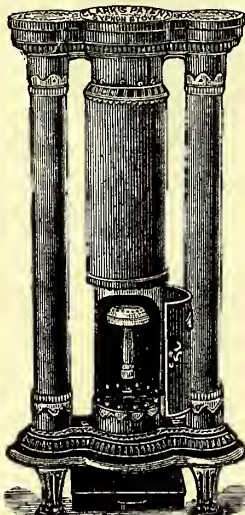
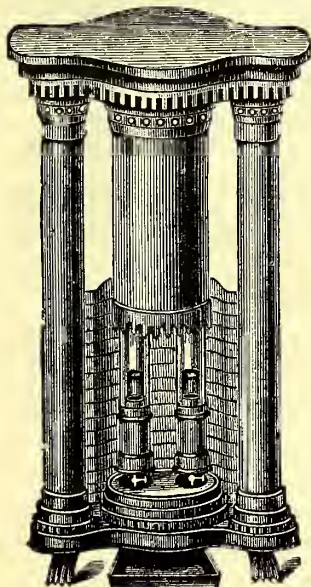
TO CHEMISTS AND DRUGGISTS.

AGENTS WANTED FOR THE SALE OF CLARK'S PATENT

"SYPHON" (REGISTERED TITLE) HYGIENIC CONDENSING GAS HEATING-STOVES.

NO FLUE REQUIRED. ARE FREE FROM SMELL OR SMOKE.

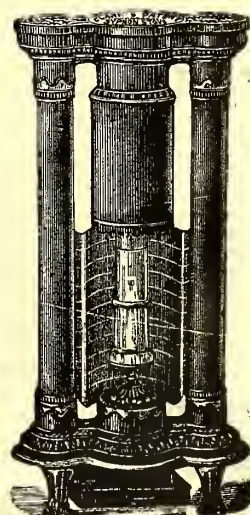
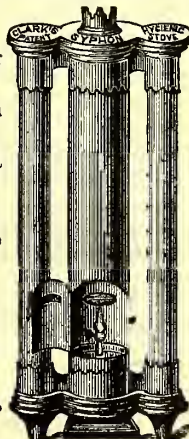
All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.



For Use in Hospitals, Sick Chambers, Bedrooms, Halls, Conservatories, Churches, Schools, &c.

Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.

For Terms, Particulars, and Prices, apply to



S. CLARK & CO., Patentees and Makers, Syphon Works, Park Street, ISLINGTON, LONDON, N.

Telegraphic Address—"SYPHON STOVES LONDON."

Wholesale Agents—Messrs. MAW, SON & THOMPSON, Aldersgate Street, London, E.C.

PURE SPIRITS OF WINE.

(STEAM STILL)
ONLY.

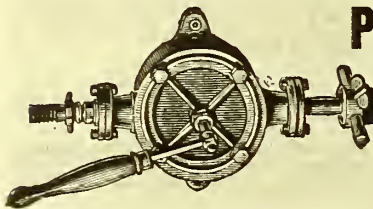
60 o.p., 18/9 per gall.; 56 o.p., 18/3 per gall.

(SPECIAL QUOTATIONS
TO LARGE CONSUMERS)

CASH WITH ORDER.

GEORGE PHILLIPS & CO., ST. ANDREW'S DISTILLERY, LONDON, E.C.
CLERKENWELL ROAD,

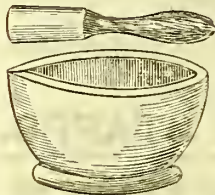
JAMES BURROUGH, S.V.R. and Methylated Spirit
56 o.p. 60 o.p.
CALE ST., CHELSEA, S.W.
AT LOWEST PRICES.
WRITE FOR QUOTATIONS.



PONTIFEX & WOOD, LD., Farringdon Works, LONDON, E.C.
THE "FARRINGTON" New Patent PUMP,

FOR PUMPING
OILS, WINES, & OTHER LIQUIDS FROM CASKS, &c.

The "Farrington" Patent Pump, with Improved Taper Barrel attachment. It is easy to work and simple in construction, and is admitted to be the best article in the market for pumping Paraffin Oil and all kinds of Liquid from barrels or tanks into other receptacles.



WEDGWOOD ACID-PROOF
MORTARS AND PESTLES.

ALSO MANUFACTURERS OF
Funnels, Evaporating Pans, Electric Battery Fittings, Bed Pans, Urinals, Medicine-Spoons, Physic Cups, Sick Feeders, Bleeding Basins, Medicine Measures, Eye Cups, Inhalers, Nursery Lamps, Wall Tiles, &c.

PRICE LIST ON APPLICATION. SPECIAL QUOTATIONS FOR LARGE ORDERS.
Any Article not bearing the Stamped Trade Mark "WEDGWOOD" is not made by us.

JOSIAH WEDGWOOD & SONS, ETRURIA, STOKE-ON-TRENT.
London Rooms: 81, ANDREW'S BUILDINGS, HOLBORN CIRCUS.

DISPENSING BOTTLES & PHIALS

WE NOW SUPPLY OUR CELEBRATED

6 and 8 oz. Bottles at 7/6 per gross.

3 ,, 4 oz. ditto 6/6 ,,

All other Sizes and Kinds equally low.

I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS,

25 Francis St., Tottenham Court Road, London, W.C.

Established upwards of 50 years. Bankers: London and Westminster Bank.

GENERAL ACCIDENT BUSINESS

AGENTS WANTED.

Chemists and Druggists invited

TO APPLY TO

EMPLOYERS' LIABILITY ASSURANCE

CORPORATION, LIMITED,

84-5 King William Street, London, E.C.

COLTHURST & HARDING,



BRISTOL—Manufactories: Phoenix Wharf and Temple Gate. Offices: Temple Gate. Telegrams: "Phoenix Bristol."

LONDON—Manufactory: Alpha Works, Millwall E. City Office: 16 Fish Street Hill, E.C. Telegrams: "Alpha Brand London."

HARD LUSTROUS ENAMEL,
IN ALL THE ART SHADES.

For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

WHITE LEAD, ZINC WHITE,
PAINTS & COLOURS OF ALL KINDS.

MIXED PAINTS READY FOR USE,
In Tins, 1, 2, 4, 7, and 14 lbs. each.

HIGH-CLASS VARNISHES

Of all kinds, for Coachbuilders, Decorators, &c.
OIL BOILERS, REFINERS, & MERCHANTS
COLOUR OF PAINT. For export Orders receive special and prompt attention.

SEABURY'S

SURGEON'S RUBBER ADHESIVE PLASTER

Strong cotton cloth, 7 in. wide—yards, 17/; 5 yards, 78/ per doz.

Twilled linen, 6 ,, ,, 24/; 5 ,, 138/ ,,

Pain or Porous.

Moleskin, 6 in. wide—yards, 48/; 5 yards, 216/ per doz.

10 yard spools, { 1 1 1/2 2 2 1/2 3 in. wide.
plain. { 18/ 24/ 30/ 40/ 50/ 60/ per doz

SUBJECT TO DISCOUNT.

Sole Manufacturers—

[2]

SEABURY & JOHNSON,

46 JEWIN STREET, LONDON, E.C.

NEW YORK.

MONTREAL.

HAMBURG.



The Chemist and Druggist says:—Mr. Arthur W. Shirley has produced a very attractive biscuit china figure, represented in the annexed engraving. The advertisement is effective without being at all vulgar, and the little crier, we expect, will soon be a familiar figure about the country.

THIS ELEGANT BISCUIT-CHINA FIGURE, AN ORNAMENT TO ANY SHOP,

GIVEN AWAY

To Purchasers of 25/ worth of

SHIRLEY'S A1 BRAND MENTHOL

OR TWO IF 40/ ORDER IS PLACED.

The following special parcels have been arranged to suit all classes of trade:—

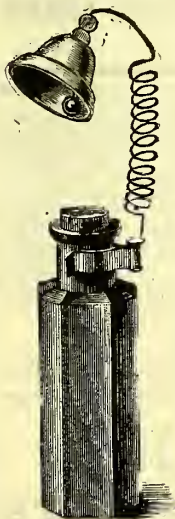
PARCEL 1. 25/.	PARCEL 2. 25/.	PARCEL 3. 25/.	PARCEL 4. 25/.
4 doz. 2d. 1 doz. 3d.	4 doz. 6d.	3 doz. 3d.	1 doz. 9d.
2 doz. 3½d. 3 doz. 4d.	2 doz. 4d.	2 doz. 1s.	2½ doz. 1s.
2 doz. 6d.	1 doz. 1s.	1 doz. 4d.	½ doz. 1s. 6d.
PARCEL 5. 40/.	PARCEL 6. 40/.	PARCEL 7. 40/.	PARCEL 8. 40/.
4 doz. 2d. 2 doz. 3d.	5 doz. 6d.	4 doz. 6d. 4 doz. 4d.	4 doz. 1s.
3 doz. 3½d. 5 doz. 4d.	3 doz. 4d.	1 doz. 9d. 2 doz. 1s.	2 doz. 9d.
4 doz. 6d.	2½ doz. 1s.		½ doz. 1s. 6d.

By calculating what each of the parcels would realise when sold, it will be found that they yield an average profit of 80 per cent. to the retailer on his outlay.

The following Patterns can be well recommended as Saleable:—

No.	Doz.	No.	Doz.
No. 6. Boxwood Pedestal, printed directions	3/6	No. 112. Boxwood Draughtsman, plain box	3/3
" 11A. " " " " "	3/0	" 113. " Cartridge " "	3/6
" 14A. " " " " "	6/3	" 113. " " reversible	3/6
" 17S. " Draughtsman " " "	3/9	" 107. Willow Pedestal, varnished white	2/3
" 17L. " " " " "	6/6	" 109. " " large " "	2/6
" 17L. Ebony " " " "	6/6	" 110v. 1d. Vase Shape, 3 doz. on card gross	7/0
" 100. 2d. Willow Round Box	13/ grs. 1/5	" 114. 2d. Varnished Pedestal, 3 doz. on card	16/
" 101. 3d. " Acorn, 2 doz. on card	17/ 1/10	" 115. 3d. Varnished Draughtsman, 2 doz. on card	20/ gross.
" 111. Large Boxwood Acorn, plain box	7/0		

COCAINE AND MENTHOL TOOTHACHE TUBE, a splendid line, 1 dozen on card, 3/6 per dozen.



Price 3/6 per doz.

To Retail at 6d.

POISON ALARM BELL!!!

(BAKER'S PROVISIONAL PATENT, No. 7833.)

This will be found the most perfect safeguard possible, as, whenever the bottle is taken up, the bell rings, and thereby immediately gives a warning as to the nature of the contents of the bottle. IT IS SIMPLICITY ITSELF, and CAN BE APPLIED TO ANY SIZE BOTTLE. Chemists will do well to persuade all their customers to have one of these valuable safeguards against accidents, as it is well known that deaths are constantly occurring by lotions and other poisonous liquids being poured out in mistake for medicines. **THIS IS A PERFECT SAFEGUARD BY NIGHT AND DAY.**

Reading from a newspaper before me, I find the following:—"Yesterday the Camberwell Coroner held an inquest on George Fidler, living in Peckham, to whom his medical attendant provided a bottle of lotion, besides his ordinary medicine. In taking his medicine the old man drank from the wrong bottle, and died in a few hours in great agony." If the ALARM BELL had been on the POISON BOTTLE this would not have occurred. No further comment is necessary, as dozens of such cases can be found, and it is the duty of every Chemist to bring under his customers' notice this simple contrivance.

In order to show this article well, a cardboard stand, fitted with a poison bottle, and bearing full particulars clearly expressed on the stand, is GIVEN AWAY to purchasers of one dozen bells, which stand, if stood on the counter, is bound to attract attention, and assist sales. The stand is small, taking up little space, but will be certain to have the effect of selling the bells, as it enables the retailer to show them practically.

ARTHUR W. SHIRLEY, 30 PATERNOSTER SQUARE, LONDON, E.C.

CARBOLIC POWDER, £4 TON.

1-ton lots and upwards.

CARBOLIC PINK POWDER, 5/-, 7/6, and 10/- per cwt., in bags or casks.

WHITE CARBOLIC POWDER, 10 %, 15 %, and 20 %, equally cheap.

HANDSOME LARGE DECORATED BLACK AND GOLD TIN BOXES.

Holding 1½ lb. (usual 1/- size), 4/6 doz. Ditto, LARGE SIZE (usual 1/6 size), holding about double quantity, 6/- doz.

PALE CARBOLIC ACID, 99 per cent. (No. 5), and CHLORIDE OF LIME below market prices

CRUDE CARBOLIC ACID (Brown), 1/-, and 1/6 Gallon; also in patent stoppered bottles, labelled.

SANITARY FLUID or CREOSOL (to be used with 100 parts of water, making a milky fluid), half usual prices

All goods delivered free in London or suburbs, or to rail or docks.

THE CHEAPEST HOUSE IN THE TRADE.

HAMILTON & CO., HIGH STREET, WANDSWORTH, LONDON, S.W.

WILEY'S CHEMICAL ESSENCE

FOR

LAMENESS IN HORSES.

Agents Wanted in every Town. Handbills, with Name and Address, supplied gratis.

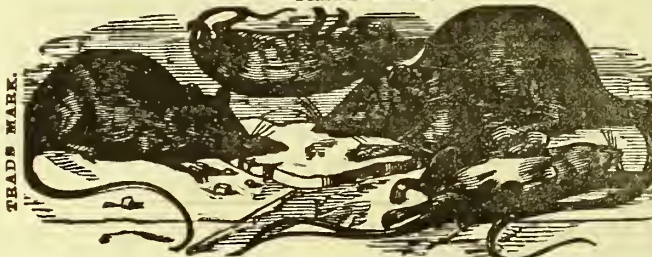
50 YEARS' UNBROKEN SUCCESS.

SOLE MAKER & PROPRIETOR, J. ROOKLEDGE, CHEMIST, EASINGWOLD, YORKS.

TO BE HAD OF USUAL WHOLESALE HOUSES.

BATTLE'S VERMIN KILLER.

TRADE MARK.



Mice eat it readily and die on the spot.

Has an immense Sale, and wherever introduced never fails to give satisfaction. Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs. Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy. On day he called in to say that he had found fifteen dead mice, and had only used part of a packet. From Mr. EDWARD STURDY, Flemington Mills.—I only received by post the Packet of your VERMIN KILLER, and found it represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets. Leeds, November 6th, 1889.—I have tried BATTLE'S VERMIN KILLER, and have found it most successful in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a supply.

WALKER, TROKE & CO.

WHOLESALE AND EXPORT DRUGGISTS

82 CITY ROAD, LONDON, E.C.

SOLE MAKERS OF

O. F. H. SKELTON, Esq., M.R.C.V.S.L.,
Leyton, Essex.

Writes:— April 5, 1889.

I have great pleasure in saying that your Quinine Tonic Ball exceeded my anticipations. Horses in low condition, and those recovering from illness, showed marked improvement after treatment with them. The Quinine Tonic Ball should prove a boon to all owners of horses.



J. G. CROSS, Esq., M.R.O.V.S.L.

Shrewsbury,

Writes:— May 20, 1889.

I have used your Quinine Tonic Balls, and consider them invaluable for animals recovering from any severe illness, specially from influenza.

GABRIEL & TROKE'S QUININE TONIC and STIMULATING GELATINE CAPSULED HORSE BALLS

(Registered No. 81,291).

Alterative, Condition, Cordial, Cough, Diuretic, Fever, Physic, and Worm Balls.

GABRIEL & TROKE WERE THE FIRST MAKERS OF GELATINE CAPSULED HORSE BALLS.

ANGLO-AMERICAN OIL COMPANY, LIM.

LONDON.

HULL.

GREAT YARMOUTH.

LIVERPOOL.

NEWCASTLE.

LYNN.

BRISTOL.

SOUTH SHIELDS.

STOCKTON.

HEAD OFFICES—16 ST. HELENS PLACE, BISHOPSGATE ST., LONDON, E.C.

American Refined Petroleum.

The long established superiority of **"Tea Rose," "Royal Daylight," "White Rose,"** and **"Westminster"** American Petroleum Oils, manufactured by the Standard Oil Company of the United States, is well known to the Trade and to Consumers, and no Oils are so widely and justly celebrated. Their superior burning qualities, freedom from odour and from any tendency to smoke, and their general excellence, have placed them above comparison with any and all other brands.

In order to meet the largely increasing demand for these oils, and the better to supply the Trade generally, we have arranged to import them from the United States in bulk as well as in barrels. We shall fill the Oil which we import in bulk into barrels at our own wharves, and as our cooperage facilities are modelled upon the best American methods, buyers will receive the Oil in tight and clean packages.

Our Tank Steamers, **"Manhattan"** and **"Bayonne,"** in their construction, arrangements, power and size, are in advance of any tank steamers afloat, and each has a carrying capacity of 4,000 tons, equivalent to 28,000 barrels of Oil by each steamer.

We shall keep large stocks of these Oils constantly on hand at all our Importing Centres and Depôts, and in this manner be able to supply the Trade promptly. Being the representatives in the United Kingdom of the Standard Oil Company, of America, we are in the best possible position for supplying the trade on the most favourable terms.

To cover the special requirements of London buyers, we have completed the construction of a large Storage Wharf at Purfleet, which will be worked in connection with our Depôts at—

AILS A STREET, BOW CREEK, E.

CANAL WHARF, CHALK FARM ROAD, N.W.

ALBANY WHARF, ALBANY ROAD, CAMBERWELL, S.E.

J. BEACH & SONS,
WILLOW WALK, BERMONDSEY, LONDON, S.E.
MANUFACTURERS OF
PLASTER SKINS and
WHITE SPLIT SKINS for Capping,
WHOLESALE AND FOR EXPORTATION.

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“ The cause of skin-roughness is usually exposure to sudden variations in temperature, and it must be admitted that in our British climate we are specially subject to this species of social evil. The minute blood-vessels (*capillaries*) of the skin are congested, and a kind of incipient inflammation takes place in the upper and under layers of our body-covering. This has the effect of causing the scarf-skin (*epidermis*) to be less perfectly formed than usual, and as its cells become also more readily detached, the too familiar appearance of roughness is produced. In addition, the use of impure face powders, and of coarse soaps loaded with alkali, as well as unwise living are to be reckoned with as causes of the skin-ailment under notice.

“ It is advisable for those who are subject to this ailment to supervise well their habits in the way of foods and drinks first of all. A diminution of flesh-foods and an increase of vegetables are to be recommended. If there have been any tendency to excess in alcohol, this must be corrected ; but at the same time it is to be borne in mind that in many cases of feeble digestion (exercising a paramount influence on the skin) a little alcohol, taken at meals only, is often of great service. The patient should be very particular regarding the soap he or she uses. ‘ Vinolia ’ Soap is one of the best brands, simply because it is pure and contains no injurious alkali, and exhibits besides an excess of the emollient fat which is healing and grateful to the skin.”

Of course skin-roughness is most gratefully treated by some soothing emollient, which is free from the annoyances peculiar to sticky, greasy ointments. For this purpose we call attention to “ Vinolia,” which is a most excellent skin-dressing. At night especially the skin, when rough, may have this agreeable application rubbed on, and when exposure to the cold winds is nigh, a very thin coating of “ Vinolia ” will protect the epidermis. These are simple but effective means of remedy for skin-roughness ; and when any complain of this ailment after shaving, we can only add, let them try “ Vinolia ” before using the razor, and also at bedtime. It may, if desired, be applied after shaving as well.

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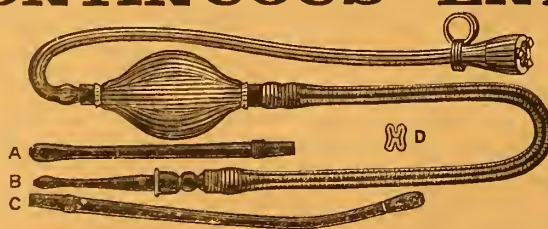
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